Baskar
10/694614

-key terms

(FILE 'HCAPLUS' ENTERED AT 10:14:54 ON 21 APR 2004)
L1 5 SEA FILE=HCAPLUS ABB=ON PLU=ON STAPHYLOCOCC?(S)(PROTEIN A OR SPA) AND PESTIS

L2 22 SEA FILE=HCAPLUS ABB=ON PLU=ON "PROTEIN A" AND PESTIS
L3 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L2 AND ((V OR H)(5A)((CA OR CALCIUM)(W)RESPONSE OR ANTIGEN) OR LCRV OR LCR V)

L4 9 L1 OR L3

filed Sep 8 1994

L4 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 30 Oct 2003
ACCESSION NUMBER: 2003:851224 HCAPLUS
DOCUMENT NUMBER: 139:336913
TITLE: Recombinant plasmid comprising **V antigen** and **staphylococcal protein A** as vaccine against Yersinia **pestis** in mammal
INVENTOR(S): Brubaker, Robert R.; Motin, Vladimir L.; Smirnov, George B.
PATENT ASSIGNEE(S): Board of Trustees of Michigan State University, USA
SOURCE: U.S., 16 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6638510	B1	20031028	US 1994-302423	19940908

PRIORITY APPLN. INFO.: US 1994-302423 19940908
AB Described is a plasmid prepared by recombinant techniques which is used to prepare a vaccine against Yersinia **pestis**. The plasmid encodes Yersinia **pestis V antigen** and **staphylococcal protein A**.
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 23 Jul 2002
ACCESSION NUMBER: 2002:547543 HCAPLUS
DOCUMENT NUMBER: 138:13291
TITLE: Co-immunisation with a plasmid DNA cocktail primes mice against anthrax and plague
AUTHOR(S): Williamson, E. D.; Bennett, A. M.; Perkins, S. D.; Beedham, R. J.; Miller, J.; Baillie, L. W. J.
CORPORATE SOURCE: Defence Science and Technology Laboratory, Porton Down, Salisbury, Wiltshire, SP4 OJQ, UK
SOURCE: Vaccine (2002), 20(23-24), 2933-2941
CODEN: VACCDE; ISSN: 0264-410X

PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The protective antigen (PA) of Bacillus anthracis and the **V antigen** of Yersinia **pestis** are potent immunogens and candidate vaccine sub-units. When plasmid DNA encoding either PA or **V antigen** was used to immunize the Balb/c mouse, a low serum IgG titer was detected (log 10 1.0 or less) which was slightly increased by boosting with plasmid DNA. However, when mice immunized with plasmid DNA were later boosted with the resp. recombinant **protein, a** significant increase in titer (up to 100-fold) was observed Mice primed with a combination of each plasmid and boosted with a combination of the recombinant proteins, were fully protected (6/6) against challenge with Y. **pestis**. This compared favorably with mice primed only with plasmid DNA encoding the **V antigen** and boosted with rV, which were partially protected (3/6) against homologous challenge or with mice primed and boosted with plasmid DNA encoding the **V antigen** which were poorly protected (1/6). Combined immunization with the two plasmid DNA constructs followed by boosting with a combination of the encoded recombinant proteins enhanced the protective immune response to Y. **pestis** compared with priming only with plasmid DNA encoding the **V antigen** and boosting with rV. This enhancement may be due to the effect of CpG motifs known to be present in the plasmid DNA construct encoding PA.
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 22 Feb 2002
ACCESSION NUMBER: 2002:142851 HCAPLUS
DOCUMENT NUMBER: 136:215388
TITLE: Immunogenic hepatitis B nucleocapsid protein (HBc) chimeric particles having enhanced stability
INVENTOR(S): Birkett, Ashley J.
PATENT ASSIGNEE(S): Apovia, Inc., USA
SOURCE: PCT Int. Appl., 290 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002014478	A2	20020221	WO 2001-US41759	20010816
WO 2002014478	A3	20030605		

W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CO, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, MZ, NO, NZ, PL, RO, SG, SI, SK, TT, UA, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,

CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003138769	A1	20030724	US 2001-930915	20010815
AU 2001085452	A5	20020225	AU 2001-85452	20010816
EP 1333857	A2	20030813	EP 2001-964615	20010816

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.:
US 2000-225843P P 20000816
US 2000-226867P P 20000822
US 2001-930915 A 20010815
WO 2001-US41759 W 20010816

AB A chimeric, carboxy-terminal truncated hepatitis B virus nucleocapsid protein (core protein or HBc) is disclosed that is engineered for both enhanced stability of self-assembled particles and the display of an immunogenic epitope. The immunogenic epitope is a B cell epitope or T cell epitope derived from pathogen such as Streptococcus pneumonia, Cryptosporidium parvum, HIV, foot and mouth disease virus, influenza virus, Yersinia pestia, etc. The display of the immunogenic epitope is displayed in the immunogenic loop of HBc, whereas the enhanced stability of self-assembled particles is obtained by the presence of at least one heterologous cysteine residue near the carboxy-terminus of the chimer mol. Methods of making and using the chimers are also disclosed.

L4 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 16 May 1997
ACCESSION NUMBER: 1997:313887 HCAPLUS
DOCUMENT NUMBER: 126:338546
TITLE: Suppression of mouse skin allograft rejection by **protein A**-Yersiniae **V antigen** fusion peptide
AUTHOR(S): Motin, Vladimir L.; Kutas, Susan M.; Brubaker, Robert R.
CORPORATE SOURCE: Department of Microbiology, Michigan State University, East Lansing, MI, 48824-1101, USA
SOURCE: Transplantation (1997), 63(7), 1040-1042
CODEN: TRPLAU; ISSN: 0041-1337
PUBLISHER: Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **V antigen** is an established virulence factor of Yersinia **pestis**, the causative agent of bubonic plague. Injection of homogeneous **staphylococcal protein A-V antigen** fusion peptide into mice was previously found to suppress tumor necrosis factor-α and interferon-γ necessary for generation of protective granulomas. Here, we show that BALB/c mice receiving daily i.p. injections of 100 μg of control **protein A** initiated rejection of C57BL/6 mouse tail skin grafts after 6.2±1.1 days. This time doubled to 12.2±1.4 days upon similar administration of **protein A-V antigen** fusion peptide ($P<0.001$); times of total allograft retention remained constant This finding indicates that **V antigen** can postpone inflammation known to be associated with recognition and destruction of foreign tissue by T lymphocytes.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 09 Apr 1997
ACCESSION NUMBER: 1997:229090 HCAPLUS
DOCUMENT NUMBER: 126:292117
TITLE: Resistance to lipopolysaccharide mediated by the Yersinia **pestis V antigen**-polyhistidine fusion peptide: amplification of interleukin-10
AUTHOR(S): Nedialkov, Yuri A.; Motin, Vladimir L.; Brubaker, Robert R.
CORPORATE SOURCE: Department of Microbiology, Michigan State University, East Lansing, MI, 48824-1101, USA
SOURCE: Infection and Immunity (1997), 65(4), 1196-1203
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We previously showed that injection of homogeneous **staphylococcal protein A-V antigen** fusion peptide into mice delayed allograft rejection and suppressed the major proinflammatory cytokines tumor necrosis factor alpha (TNF-α) and gamma interferon (IFN-γ) associated with generation of protective granulomas. This study was undertaken to determine if **V antigen** could prevent endotoxic shock, known to be mediated by excessive production of certain proinflammatory cytokines. After treatment with 50 μg of homogeneous **V antigen**-polyhistidine fusion peptide (Vh), the 50% LD of purified lipopolysaccharide (LPS) in BALB/c mice immediately rose from 63 μg (normal controls) to 318 μg, fell to near baseline (71 μg) in 6 h, and then slowly rose to a maximum of 566 μg at 48 h before again returning to normal. Injected Vh alone (50 μg) promptly induced the anti-inflammatory cytokine interleukin-10 (IL-10) as well as modest levels of TNF-α (an inducer of IL-10) in spleen. Concomitant injection of Vh and an otherwise LD of LPS (200 μg) dramatically decreased levels of TNF-α and IFN-γ in the spleen and peritoneal lavage fluid as compared to values determined for LPS alone. These results would be expected if **V antigen** directly up-regulated IL-10 that is reported to generally down-regulate proinflammatory cytokines. Mice receiving 200 μg of LPS 48 h after injection of Vh exhibited patterns of cytokine synthesis similar to those observed in endotoxin-tolerant mice, a condition also reported to be mediated by IL-10. These findings suggest that **V antigen** serves as a virulence factor by amplifying IL-10, thereby repressing proinflammatory cytokines required for expression of cell-mediated immunity.

L4 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 11 Oct 1996
ACCESSION NUMBER: 1996:606425 HCAPLUS
DOCUMENT NUMBER: 125:245156
TITLE: **V antigen**-polyhistidine

fusion peptide: binding to LcrH and active immunity against plague
AUTHOR(S): Motin, Vladimir L.; Nedialkov, Yuri A.; Brubaker, Robert R.
CORPORATE SOURCE: Department Microbiology, Michigan State University, East Lansing, MI, 48824-1101, USA
SOURCE: Infection and Immunity (1996), 64(10), 4313-4318
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The structural gene for **V antigen** (**lcrV**) is known to be encoded within the lcrGVH-yopBD operon of the .apprx.70-kb low-calcium-response or Lcr plasmid of Yersinia **pestis**. This 37-kDa monomeric peptide was reported to provide active immunity in mice, suppress inflammatory cytokines, and regulate expression of the low calcium response (Lcr+). Here the authors describe pVHB62, encoding a polyhistidine-**V antigen** fusion peptide (Vh) and linked LcrH. Vh underwent degradation from both the C terminus and N terminus during classical chromatog. fractionation but remained intact within two compartments during Ni2+ affinity chromatog. The first was homogeneous, capable of active immunization (mouse i.v. 50% LD, >107 bacteria), and stable at 4°. The second remained bound to the affinity column but could be eluted as a mixture of Vh, LcrH, and low-mol.-weight material by application of 6 M guanidine·HCl. This mixture was dialyzed, denatured in 8 M urea, and again applied to the affinity column, which then bound Vh but not LcrH. The latter was recovered and renatured, and low-mol.-weight material was removed by biochem. fractionation. The resulting homogeneous LcrH bound **protein A-V antigen** fusion peptide but not **protein A** in a sandwich ELISA, and this reaction was inhibited by Vh. These observations indicate that LcrH normally binds **V antigen** in bacterial cytoplasm and suggest that only free LcrH down-regulates expression of the low calcium response.

L4 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 03 Aug 1995
ACCESSION NUMBER: 1995:718958 HCAPLUS
DOCUMENT NUMBER: 123:167051
TITLE: Suppression of cytokines in mice by **protein A-V antigen** fusion peptide and restoration of synthesis by active immunization
AUTHOR(S): Nakajima, Ryohei; Motin, Vladimir L.; Brubaker, Robert R.
CORPORATE SOURCE: Exploratory Res. lab. I, Daiichi Pharm. Co., ltd., Tokyo, 134, Japan
SOURCE: Infection and Immunity (1995), 63(8), 3021-9
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB It is established that an .apprx.70-kb Lcr plasmid enables Yersinia **pestis**, the causative agent of bubonic plague, to multiply

in focal necrotic lesions within visceral organs of mice by preventing net synthesis of the cytokines tumor necrosis factor alpha (TNF-α) and gamma interferon (IFN-γ), thereby minimizing inflammation (Lcr+). Rabbit antiserum raised against cloned **staphylococcal protein A-V antigen** fusion peptide (PAV) is known to passively immunize mice against 10 min. LDs of i.v. injected Lcr+ cells of Y. **pestis**. In this study, injected PAV suppressed TNF-α and IFN-γ in mice challenged with avirulent **V antigen**-deficient Y. **pestis** (**lcrV** or Lcr-) and promoted survival in vivo of these isolates as well as salmonellae and Listeria monocytogenes (with which the outcome was lethal). Active immunization of mice with PAV protected against 1,000 min. LDs of i.v. injected Lcr+ cells of Y. **pestis** and Yersinia pseudotuberculosis but not Yersinia enterocolitica. The progressive necrosis provoked by Lcr+ cells of Y. **pestis** in visceral organs of nonimmunized mice was replaced after active immunization with PAV by massive infiltration of neutrophils and mononuclear cells (which generated protective granulomas indistinguishable from those formed against avirulent Lcr- mutants in nonimmunized mice). Distinct multiple abscesses typical of Lcr+ cells of Y. pseudotuberculosis were prevented by similar immunization. Significant synthesis of TNF-α and IFN-γ occurred in spleens of mice actively immunized with PAV after challenge with Lcr+ cells of Y. **pestis**. These findings suggest that **V antigen** contributes to disease by suppressing the normal inflammatory response.

L4 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 26 Nov 1994
ACCESSION NUMBER: 1994:653231 HCAPLUS
DOCUMENT NUMBER: 121:253231
TITLE: Passive immunity to yersiniae mediated by anti-recombiant **V antigen** and **protein A-V antigen** fusion peptide
AUTHOR(S): Motin, Vladimir L.; Nakajima, Ryohei; Smirnov, George B.; Brubaker, Robert R.
CORPORATE SOURCE: Dep. Micribiol., Michigan State Univ., East Lansin, MI, 48824-1101, USA
SOURCE: Infection and Immunity (1994), 62(10), 4192-201
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **LcrV** (**V antigen**), a known unstable 37.3-kDa monomeric peptide encoded on the ca. 70-kb Lcr plasmid of Yersinia **pestis**, Yersinia pseudotuberculosis, and Yersinia enterocolitica, has been implicated as a regulator of the low-calcium response, virulence factor, and protective antigen. In this study, **lcrV** of Y. **pestis** was cloned into protease-deficient Escherichia coli BL21. The resulting recombinant **V antigen** underwent marked degradation from the C-terminal end during purification, yielding major peptides of 36, 35, 34, and 32 to 29 kDa. Rabbit gamma globulin raised against this mixture of cleavage products provided significant protection against 10 min. LDs of Y. **pestis** ($P<0.01$) and Y.

pseudotuberculosis (P<0.02). To both stabilize **V antigen** and facilitate its purification, plasmid pPAV13 was constructed so as to encode a fusion of **lcrV** and the structural gene for **protein A** (i.e., all but the first 67 N-terminal amino acids of **V antigen** plus the signal sequence and IgG-binding domains but not the cell wall-associated region of **protein A**). The resulting fusion peptide, termed PAV, could be purified to homogeneity in one step by IgG affinity chromatog. and was stable thereafter. Rabbit polyclonal gamma globulin directed against PAV provided excellent passive immunity against 10 min. LDs of Y. **pestis** (P<0.005) and Y. pseudotuberculosis (P<0.005) but was ineffective against Y. enterocolitica. Protection failed after absorption with excess PAV, cloned whole **V antigen**, or a large (31.5-kDa) truncated derivative of the latter but was retained (P<0.005) upon similar absorption with a smaller (19.3-kDa) truncated variant, indicating that at least one protective epitope resides internally between amino acids 168 and 275.

L4 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 24 Jul 1993
ACCESSION NUMBER: 1993:426164 HCAPLUS
DOCUMENT NUMBER: 119:26164
TITLE: Enzyme immunoassay of antibodies
AUTHOR(S): Kulyash, G. Yu.; Lyapin, M. N.; Golovko, Ye. M.; Luchnikova, Ye. A.
CORPORATE SOURCE: Vsesoyuzh. Nauchno-Issled. Protivochumn. Inst. "Mikrob", Saratov, Russia
SOURCE: Klinicheskaya Laboratornaya Diagnostika (1992), (7-8), 58-60
CODEN: KLDIES; ISSN: 0869-2084
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The possibility of antibody enzyme immunoassay in a tested sample without using specific antispecies horseradish peroxidase-labeled IgG or **staphylococcal protein A** conjugated with horseradish peroxidase was demonstrated in expts. with Pasteurella **pestis** capsular antigen and different antibodies to it. The method is based on the use of protein A without enzymic label, that is fixed on Fc fragments of the initial antibodies specifically bound to antigen. At later stages of the experiment protein A can adsorb virtually any Ig conjugate with horseradish peroxidase that is available and can provide an enzymic reaction with the substrate.

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 10:16:10 ON 21 APR 2004)
L5 53 S L4
L6 33 DUP REM L5 (20 DUPLICATES REMOVED)

L6 ANSWER 1 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2004-142895 [14] WPIDS
DOC. NO. NON-CPI: N2004-113937
DOC. NO. CPI: C2004-057498
TITLE: New plasmid comprising an rRNA gene having a mutant Anti-Shine-Dalgarno sequence, useful for

identifying drug candidates that are not susceptible to antibiotic resistance.

DERWENT CLASS: B04 D16 S03
INVENTOR(S): CUNNINGHAM, P R
PATENT ASSIGNEE(S): (UYWA-N) UNIV WAYNE STATE
COUNTRY COUNT: 105
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2004003511	A2	20040108	(200414)*	EN	88

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004003511	A2	WO 2003-US20963	20030701

PRIORITY APPLN. INFO: US 2003-452012P 20030305; US 2002-393237P 20020701

AN 2004-142895 [14] WPIDS

AB WO2004003511 A UPAB: 20040226

NOVELTY - A plasmid comprising an rRNA gene having a mutant Anti-Shine-Dalgarno sequence, at least one mutation in the rRNA gene, and a genetically engineered gene which encodes a selectable marker having a mutant Shine-Dalgarno sequence, where the mutant Anti-Shine-Dalgarno and the mutant Shine-Dalgarno sequence are a mutually compatible pair, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a cell comprising the plasmid;

(2) identifying functional mutant ribosomes;

(3) identifying functional mutant ribosomes that may be suitable as drug targets; and

(4) identifying drug candidates.

USE - The plasmid is useful for identifying drug candidates and functional mutant ribosomes that may be suitable as drug targets (claimed), where the drug candidates are not susceptible to antibiotic resistance.

Dwg.0/26

L6 ANSWER 2 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2004-011801 [01] WPIDS
DOC. NO. CPI: C2004-003469
TITLE: Selecting an antibody from a phage display library using sequential antigen panning, useful for treating or reducing infections, such as bacterial,

virus and parasitic infection, and for inhibiting cancers.
DERWENT CLASS: B04 D16
INVENTOR(S): DIMITROV, D S; ZHANG, M
PATENT ASSIGNEE(S): (USSH) US DEPT HEALTH & HUMAN SERVICES
COUNTRY COUNT: 103
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003092630	A2	20031113	(200401)*	EN	78

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003092630	A2	WO 2003-US14292	20030506

PRIORITY APPLN. INFO: US 2002-378408P 20020506
AN 2004-011801 [01] WPIDS
AB WO2003092630 A UPAB: 20040102
NOVELTY - Selecting an antibody comprising selecting an antibody from a phage display library using sequential antigen panning, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a sequential antigen panning method for selecting an antibody from a phage display library, comprising selecting phage from a phage display library using a first selecting condition, where the first selecting condition is an antigen at a known concentration, and selecting phage from the phage selected using a second selecting condition that differs from the first selecting conditions, with the proviso that this step can be repeated any number of times, each time using a different selecting conditions;

(2) a composition produced using any of the methods;

(3) a composition comprising a neutralizing antibody that recognizes more than one strain of a pathogen;

(4) an antibody to HIV envelope glycoprotein that can recognize one or more strains of HIV, comprising a 233, 228, 231, 237, 214, 210, 212 or 212 amino acid sequence (SEQ ID NO: 1-8), given in the specification, or their variants that retains the ability to bind to the same epitope to a greater or lesser extent;

(5) a fusion protein or conjugate comprising the antibody of (4);

(6) a composition comprising the antibody of (4), where the toxin is Pseudomonas toxin;

(7) an isolated or purified nucleic acid molecule comprising a

sequence encoding amino acid sequence with SEQ ID NO: 1-6, or its variant that retains the ability to bind to the same epitope to a greater or lesser extent;

(8) a vector comprising the isolated or purified nucleic acid of (7);

(9) a composition comprising the isolated or purified nucleic acid molecule of (7), optionally in the form of a vector;

(10) a host cell comprising the isolated or purified nucleic acid molecule of (7), optionally in the form of a vector;

(11) treating, inhibiting or reducing the severity of an infection in an animal, comprising administering an infection-inhibiting amount of a composition comprising an antibody produced by the method, optionally in the form of a fusion protein, where the antibody or fusion protein is optionally encoded in an isolated or purified nucleic acid molecule, which is optionally in the form of a vector and/or optionally contained within a cell, where the infection in the animal is inhibited; and

(12) inhibiting cancer in a mammal, comprising administering an cancer-inhibiting amount of a composition comprising an antibody produced by the method, optionally in the form of a fusion protein, where the antibody or fusion protein is optionally encoded in an isolated or purified nucleic acid molecule, which is optionally in the form of a vector and/or optionally contained within a cell, where the cancer in the animal is inhibited.

ACTIVITY - Antibacterial; Virucide; Antiparasitic; Protozoacide; Fungicide; Cytostatic.

No biological data given.

MECHANISM OF ACTION - Gene-Therapy.

USE - The methods and compositions of the present invention are useful for treating, inhibiting or reducing the severity of an infection, such as bacterial, virus and parasitic infection, and for inhibiting cancers.

Dwg.0/5

L6 ANSWER 3 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2003-712786 [67] WPIDS
DOC. NO. NON-CPI: N2003-570098
DOC. NO. CPI: C2003-196095
TITLE: Identifying a vaccine candidate, for preparing a vaccine that produces a protective immune response, comprises selecting a protein from the proteome of a target organism on the basis of a biophysical property or amino acid composition.
DERWENT CLASS: B04 D16 T01
INVENTOR(S): DUFFIELD, M L; LINGARD, B; MAYERS, C N; MILLER, J; ROWE, S C; TITBALL, R W
PATENT ASSIGNEE(S): (MINA) UK SEC FOR DEFENCE
COUNTRY COUNT: 101
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003073351	A2	20030904	(200367)*	EN	38

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ

DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
KE KG KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO
NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA
UG US UZ VC VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003073351 A2		WO 2003-GB796	20030225

PRIORITY APPLN. INFO: GB 2002-4387 20020226
AN 2003-712786 [67] WPIDS
AB WO2003073351 A UPAB: 20031017
NOVELTY - Identifying a vaccine candidate, comprising selecting a protein from the proteome of a target organism on the basis of a biophysical property or the amino acid composition of the protein, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:
(1) a vaccine candidate identified by the method cited above;
(2) a vaccine comprising the vaccine candidate of (1), or its fragment or variant, which produces a protective immune response; and

(3) a computer-readable medium containing first and control datasets, and computer-readable instructions for performing the method cited above.

ACTIVITY - Antibacterial; Virucide; Fungicide.
No biological data given.
MECHANISM OF ACTION - Vaccine.
USE - Identifying a vaccine candidate is useful for preparing a vaccine that produces a protective immune response against bacteria, viruses or yeasts. The computer-readable medium is useful for identifying a vaccine candidate.
Dwg.0/4

L6 ANSWER 4 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2003-587112 [55] WPIDS
CROSS REFERENCE: 2004-091354 [09]
DOC. NO. CPI: C2003-158870
TITLE: New plastid transformation vector comprising first flanking sequences, a DNA sequence coding for a protective antigen capable of expression in a plastid, and a second flanking sequence, useful for treating plaque or anthrax.
DERWENT CLASS: B04 C06 D16 K02
INVENTOR(S): DANIELL, H
PATENT ASSIGNEE(S): (UYFL-N) UNIV CENT FLORIDA
COUNTRY COUNT: 97
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003057834 A2		20030717	(200355)*	EN	107

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ
DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ
NO NZ PL PT RO RU SD SE SG SK SL TJ TM TR TT TZ UA UG US UZ
VN YU ZA ZW

AU 2002358292 A1 20030724 (200421)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003057834 A2		WO 2002-US41503	20021226
AU 2002358292 A1		AU 2002-358292	20021226

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2002358292 A1	Based on	WO 2003057834

PRIORITY APPLN. INFO: US 2002-400816P 20020802; US 2001-344704P 20011226; US 2002-393651P 20020703

AN 2003-587112 [55] WPIDS
CR 2004-091354 [09]
AB WO2003057834 A UPAB: 20040326
NOVELTY - A plastid transformation vector (I) comprising, as operably linked components, a first flanking sequence, a DNA sequence coding for a protective antigen capable of expression in a plastid, and a second flanking sequence, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:
(1) a plant stably transformed with (I) comprising DNA encoding a bacterial antigen;
(2) a progeny of the plant of (1);
(3) a seed of the plant of (1);
(4) a part of the plant of (1) or (2) comprising a plastid including the DNA sequence coding for a protective antigen;
(5) producing a protective antigen;
(6) a vaccine for conferring immunity to Bacillus anthracis in a mammal;
(7) an orally-administrable vaccine for conferring immunity to B. anthracis in a mammal;
(8) an orally-administrable vaccine for conferring immunity against Yersinia **pestis** in a mammal;
(9) a plant plastid comprising a DNA coding sequence for a protective antigen; and
(10) a plant cell or plant comprising the plastid of (9).
ACTIVITY - Antibacterial. No biological data given.
MECHANISM OF ACTION - Vaccine. No biological data given.
USE - The vector (I) and vaccine compositions are useful for immunizing mammals against anthrax disease, bubonic and pneumonic plague.
Dwg.0/24

L6 ANSWER 5 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2003-842785 [78] WPIDS
DOC. NO. CPI: C2003-236770

TITLE: Controlling Yersinia **pestis** in a mammal, useful for immunizing a mammal against bubonic plague, comprises administering a vaccine comprising a **staphylococcal protein** A-**V antigen** fusion **protein.**

DERWENT CLASS: B04 D16
INVENTOR(S): BRUBAKER, R R; MOTIN, V L; SMIRNOV, G B
PATENT ASSIGNEE(S): (UNMS) UNIV MICHIGAN STATE
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6638510	B1	20031028	(200378)*		16

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6638510	B1	US 1994-302423	19940908

PRIORITY APPLN. INFO: US 1994-302423 19940908
AN 2003-842785 [78] WPIDS
AB US 6638510 B UPAB: 20031203
NOVELTY - Controlling Yersinia **pestis** in a mammal comprises treating a mammal with a vaccine comprising an antigen **protein** encoded by a plasmid prepared by recombinant techniques having the construct encoding a **staphylococcal protein** A-**V antigen** fusion **protein.**

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) treating a mammal by administering to a mammal a composition comprised of a **protein** encoded by a plasmid; and

(2) immunizing a mammal against Y. **pestis** by subjecting the mammal with a composition comprised of the determinants of Y. **pestis** which have been subjected to a **protein** encoded by a plasmid prepared by recombinant techniques having the construct described above.

ACTIVITY - Antibacterial. No clinical details given.

MECHANISM OF ACTION - Vaccine.

USE - The plasmid is useful for controlling Y. **pestis** in a mammal, or for immunizing a mammal against Y. **pestis,** particularly against bubonic plague.

Dwg.0/7

L6 ANSWER 6 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2003-895424 [82] WPIDS
DOC. NO. CPI: C2003-254359
TITLE: Screening a test compound for the ability to inhibit microbial proliferation comprises providing a population of microbial cells expressing an ectoenzyme or secreted enzyme.

DERWENT CLASS: B04 D16
INVENTOR(S): ZYSKIND, J W
PATENT ASSIGNEE(S): (ELIT-N) ELITRA PHARM INC
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6620585	B1	20030916	(200382)*		52

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6620585	B1	US 2000-630929	20000802

PRIORITY APPLN. INFO: US 2000-630929 20000802
AN 2003-895424 [82] WPIDS
AB US 6620585 B UPAB: 20031223
NOVELTY - Screening a test compound that can inhibit microbial proliferation comprises providing population of microbial cells (I) expressing ectoenzyme or secreted enzyme, where (I) is contacted with sublethal level of antisense nucleic acid complementary to portion of nucleic acid that encodes gene product required for proliferation of (I), to reduce activity or amount of gene product.

DETAILED DESCRIPTION - The method comprises:

(a) providing a population of microbial cells expressing an ectoenzyme or secreted enzyme, where the population of cells is contacted with a sublethal level of an antisense nucleic acid that is complementary to at least a portion of a nucleic acid that encodes a gene product that is required for proliferation of the population of microbial cells, to reduce the activity or amount of the gene product in the cell;

(b) determining the extent of proliferation of the sensitized cells that express the ectoenzyme or secreted enzyme by measuring the activity of the ectoenzyme or secreted enzyme;

(c) contacting the sensitized cells with a test compound and measuring the extent of proliferation of the sensitized cells in response to the test compound; and

(d) determining whether the test compound inhibits the proliferation of the sensitized cells by comparing the activity of the ectoenzyme or secreted enzyme in the sensitized cells prior to contact with the test compound with its activity following contact with the test compound.

USE - The method is useful for screening a test compound for the ability to inhibit microbial proliferation comprises providing a population of microbial cells expressing an ectoenzyme or secreted enzyme. The ectoenzymes and secreted enzymes are useful for monitoring cellular proliferation.

Dwg.0/11

L6 ANSWER 7 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2003-290537 [29] WPIDS
DOC. NO. CPI: C2003-075580
TITLE: Identifying compounds that modulate MTA/AdoHcy

nucleosidase activity, by designing compound that interacts with three-dimensional structure of the nucleosidase and determining whether the compound affects the activity.

DERWENT CLASS: B04 D16
INVENTOR(S): HOWELL, L; LEE, J E
PATENT ASSIGNEE(S): (HOSP-N) HOSPITAL FOR SICK CHILDREN
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
CA 2390971	A1	20030119	(200329)*	EN	9

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
CA 2390971	A1	CA 2002-2390971	20020719

PRIORITY APPLN. INFO: US 2001-306712P 20010719
AN 2003-290537 [29] WPIDS
AB CA 2390971 A UPAB: 20030505
NOVELTY - Identifying (M) a compound that affects MTA/AdoHcy nucleosidase activity, involves obtaining a three-dimensional (3D) structure of MTA/AdoHcy nucleosidase or its fragment, designing a compound to interact with the 3D structure of MTA/AdoHcy nucleosidase or its fragment, obtaining the compound, and determining whether the compound affects MTA/AdoHcy nucleosidase activity.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a compound (C) obtained by (M);

(2) a computer readable medium with either structural coordinate data or structural data, the data defining the 3D structure of the MTA/AdoHcy nucleosidase bound to an inhibitor or its fragment;

(3) a computer system containing structural coordinate data or structural data as above;

(4) designing an MTA/AdoHcy nucleosidase inhibitor through use of a crystal or structure coordinates of the nucleosidase; and

(5) a crystal comprising MTA/AdoHcy nucleosidase.

ACTIVITY - Antibacterial; Antipyretic; Antiulcer; Antiinflammatory; Tuberculostatic. No supporting data is given.

MECHANISM OF ACTION - Modulator of MTA/AdoHcy nucleosidase activity.

USE - (M) is useful for identifying a compound that affects MTA/AdoHcy nucleosidase activity. The identified compound is useful for treating a disease caused by a microbe having MTA/AdoHcy nucleosidase in a subject. The microbe is Streptococcus pyrogenes, Yersinia **pestis**, Vibrio cholerae, Haemophilus influenzae, Enterococcus faecalis, Helicobacter pylori, Mycobacterium tuberculosis, S.aureus, S. pneumoniae, Campylobacter jejuni, Treponema pallidum, Borrelia burgdorferi, Salmonella typhimurium, Escherichia coli, Neisseria meningitidis and Bacillus anthracis. The

disease is pharyngitis, scarlet fever, impetigo cellulites, bubonic plague, pneumonic plague, cholera, pneumonia, urinary tract infection, peptic ulcer, gastritis, tuberculosis, staphyloenterotoxicosis, staphyloenterotoxemia, meningitis, infectious campylobacteriosis, syphilis, Lyme disease, food poisoning, hemorrhagic colitis, meningitis and septicaemia (claimed).
Dwg.0/0

L6 ANSWER 8 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2003-120579 [11] WPIDS
DOC. NO. NON-CPI: N2003-096057
DOC. NO. CPI: C2003-031163
TITLE: Identifying biologically active agents comprises cloning transfected cells into a cell array, exposing the array to an agent to be tested, and detecting signals generated by a reporter molecule as a result of exposure to the agent.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): ANDREWS, P; DRAPER, J; WALSH, J
PATENT ASSIGNEE(S): (AXOR-N) AXORDIA LTD
COUNTRY COUNT: 100
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002090992	A2	20021114	(200311)*	EN	90

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002090992	A2	WO 2002-GB1946	20020429

PRIORITY APPLN. INFO: GB 2001-11004 20010504
AN 2003-120579 [11] WPIDS
AB WO 200290992 A UPAB: 20030214
NOVELTY - Screening (M1) for identifying biologically active agents, comprises:
(i) providing a population of cells stably transfected with a nucleic acid encoding a reporter molecule;
(ii) cloning the transfected cells into a cell array;
(iii) exposing the array to at least one agent to be tested; and
(iv) detecting a signal generated by the reporter molecule as a result of exposure to the agent.
DETAILED DESCRIPTION - Screening (M1)for identifying biologically active agents, comprises:

(i) providing a population of cells which have been stably transfected with a nucleic acid molecule encoding a reporter molecule;

(ii) cloning the transfected cells into a cell array;

(iii) exposing the array to at least one agent to be tested; and

(iv) detecting a signal generated by the reporter molecule as a result of exposure to the agent.

INDEPENDENT CLAIMS are also included for the following:

(1) An agent identified by M1;

(2) A cell or a cell array obtained by M1;

(3) Screening (M2) for the isolation of a gene, comprising:

(a) steps (i)-(iv) of M1;

(b) extracting nucleic acid from a cell sample comprising the cell array; and

(c) determining the sequence of at least part of the genomic region into which the nucleic acid encoding the reporter molecule has integrated;

(4) Comparing the biological activity of a reference agent with at least one other agent, comprising:

(a) steps (i) and (ii) of the above method;

(b) preparing a duplicate array;

(c) step (iii) of the above method;

(d) exposing the duplicate array to a reference agent; and

(e) detecting a signal generated by the reporter molecule as a result of exposure to the agent and to the reference agent; and

(5) A vector comprising a reporter molecule, a splice acceptor site and an internal ribosome entry site, where the splice acceptor and the internal ribosome entry site are operably linked to facilitate expression of the reporter molecule.

USE - The method is useful in identifying biologically active agents and the genes through which the agents act, in screening potential drugs for their ability to activate certain drug targets in a high-throughput assay, in identifying relationships between signaling pathways and specific signals that could be useful in eventually directing the differentiation of embryonic stem cells, and in toxicology assays by testing for unwanted activation or inhibition of specific signaling pathways. The vector is useful in carrying out the above methods (claimed).

Dwg.0/99

L6 ANSWER 9 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER:	2003-029926 [02] WPIDS
CROSS REFERENCE:	2001-611495 [70]; 2002-575374 [61]; 2003-479541 [45]
DOC. NO. CPI:	C2003-006812
TITLE:	New antisense nucleic acids, useful for identifying proteins or screening for homologous nucleic acids required for cellular proliferation to isolate candidate molecules for rational drug discovery programs.
DERWENT CLASS:	B04 D16
INVENTOR(S):	CARR, G J; FORSYTH, R A; HASELBECK, R; MALONE, C; OHLSEN, K L; TRAWICK, J D; WALL, D; WANG, L; XU, H H; YAMAMOTO, R; ZAMUDIO, C; ZYSKIND, J W
PATENT ASSIGNEE(S):	(CARR-I) CARR G J; (FORS-I) FORSYTH R A; (HASE-I)

HASELBECK R; (MALO-I) MALONE C; (OHLS-I) OHLSEN K L; (TRAW-I) TRAWICK J D; (WALL-I) WALL D; (WANG-I) WANG L; (XUHH-I) XU H H; (YAMA-I) YAMAMOTO R; (ZAMU-I) ZAMUDIO C; (ZYSK-I) ZYSKIND J W; (ELIT-N) ELITRA PHARM INC

COUNTRY COUNT: 100

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002077183	A2	20021003	(200302)*	EN	863

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

US 2004029129 A1 20040212 (200412)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002077183	A2	WO 2002-US9107	20020321
US 2004029129	A1 Provisional	US 2001-342923P	20011025
	Provisional	US 2002-362699P	20020306
		US 2002-282122	20021025

PRIORITY APPLN. INFO: US 2002-362699P 20020306; US 2001-815242 20010321; US 2001-948993 20010906; US 2001-342923P 20011025; US 2002-72851 20020208

AN 2003-029926 [02] WPIDS

CR 2001-611495 [70]; 2002-575374 [61]; 2003-479541 [45]

AB WO 200277183 A UPAB: 20040218

NOVELTY - Isolated nucleic acid comprising any one of the 6213 sequences given in the specification where expression of the nucleic acid inhibits proliferation of a cell, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a vector comprising a promoter operably linked to the nucleic acid encoding a polypeptide whose expression is inhibited by the antisense nucleic acid;

(2) a host cell containing the vector;

(3) an isolated polypeptide or its fragment whose expression is inhibited by the antisense nucleic acid;

(4) an antibody capable of specifically binding the polypeptide;

(5) producing the polypeptide;

(6) inhibiting cellular proliferation or the activity of a gene in an operon required for proliferation;

(7) identifying a compound that influences the activity of the gene product or that has an activity against a biological pathway required for proliferation, or that inhibits cellular proliferation;

(8) identifying a compound or nucleic acid that reduces the

activity or level of the gene product required for proliferation or that interacts with the gene or gene product to inhibit cellular proliferation;

(9) a composition comprising the antisense nucleic acid or its proliferation-inhibiting portion in a carrier;

(10) identifying a gene required for cellular proliferation or the biological pathway in which a proliferation-required gene or its gene product lies or a gene on which the test compound that inhibits proliferation of an organism acts;

(11) manufacturing an antibiotic;

(12) profiling a compound's activity;

(13) a culture comprising strains in which the gene product is overexpressed or underexpressed;

(14) determining the extent to which each of the strains is present in a culture or collection of strains; or

(15) identifying the target of a compound that inhibits the proliferation of an organism.

USE - The antisense nucleic acids are useful for identifying proteins or screening for homologous nucleic acids required for cellular proliferation to isolate candidate molecules for rational drug discovery programs, or for screening homologous nucleic acids required for proliferation in cells other than S. aureus, S. typhimurium, K. pneumoniae or P. aeruginosa.

Dwg.0/18

L6 ANSWER 10 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2002-643387 [69] WPIDS
DOC. NO. CPI: C2004-014233
TITLE: Modifying a bacterium to enhance immunogenicity, as vaccines for preventing bacterial infections, e.g. tuberculosis comprises reducing the activity of an anti-apoptotic enzyme, e.g. superoxide dismutase produced by the bacterium.
DERWENT CLASS: B04 D16
INVENTOR(S): BOCHAN, M R; KERNODLE, D S
PATENT ASSIGNEE(S): (UYVA-N) UNIV VANDERBILT; (USGO) US DEPT VETERANS AFFAIRS
COUNTRY COUNT: 100
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002062298	A2	20020815	(200269)*	EN	164
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
EP 1361794	A2	20031119	(200377)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002062298	A2	WO 2002-US3451	20020207
EP 1361794	A2	EP 2002-706163	20020207
		WO 2002-US3451	20020207

FILING DETAILS:

PATENT NO	KIND		PATENT NO
EP 1361794	A2	Based on	WO 2002062298

PRIORITY APPLN. INFO: US 2001-322989P 20010918; US 2001-267328P 20010207

AN 2002-643387 [69] WPIDS

AB WO 200262298 A UPAB: 20040115

NOVELTY - Modifying (M1) a bacterium to enhance immunogenicity of the bacterium comprising reducing the activity of an anti-apoptotic enzyme produced by the bacterium, where the bacterium has enhanced immunogenicity in a subject, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a modified bacterium (I) made by (M1);

(2) an immunogenic composition comprising (I);

(3) an attenuated intracellular bacterium, further modified to reduce the activity of an anti-apoptotic enzyme of the bacterium;

(4) modifying a bacterium (M2) so it retains or increases immunogenicity but loses or reduces pathogenicity in a subject, comprising reducing but not eliminating an activity of an enzyme produced by the bacterium, where reducing the activity of the enzyme attenuates the bacterium;

(5) bacteria modified by (M2);

(6) a composition (II) comprising any of the bacterium, and a carrier;

(7) producing (M3) an immune response by an immune cell of the subject, comprising contacting the cell wall with (II) or administering (II) to the subject; and

(8) preventing (M4) an infectious disease in a subject, comprising administering to the subject (II).

ACTIVITY - Antibacterial; Tuberculostatic.

No biological data given.

MECHANISM OF ACTION - Vaccine; Superoxide dismutase inhibitor.

USE - (M1) is useful for preventing bacterial infections, e.g. tuberculosis (claimed). The attenuated intracellular bacterium is useful as a vaccine for preventing bacterial infections.

Dwg.0/25

L6 ANSWER 11 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2002-164785 [21] WPIDS

CROSS REFERENCE: 2001-611633 [70]

DOC. NO. CPI: C2002-050985

TITLE: Nucleic acid encoding a DNA polymerase III holoenzyme delta subunit from bacteria, useful for screening agents that modulate the subunit activity which is useful in the treatment of bacterial infections e.g. S. pyogenes and S. aureus.

DERWENT CLASS: B04 D16
INVENTOR(S): BULLARD, J J; JANJIC, N; MCHENRY, C S; BULLARD, J M; KERY, V
PATENT ASSIGNEE(S): (REPL-N) REPLIDYNE INC; (BULL-I) BULLARD J M; (JANJ-I) JANJIC N; (MCHE-I) MCHENRY C S
COUNTRY COUNT: 97
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002006532	A1	20020124	(200221)*	EN	500
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
AU 2001078935	A	20020130	(200236)		
EP 1301631	A1	20030416	(200328)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
US 2003219737	A1	20031127	(200378)		
US 6677146	B1	20040113	(200405)		
JP 2004508018	W	20040318	(200420)		614

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
WO 2002006532	A1		WO 2001-US22395	20010716
AU 2001078935	A		AU 2001-78935	20010716
EP 1301631	A1		EP 2001-957164	20010716
			WO 2001-US22395	20010716
US 2003219737	A1	Provisional	US 2000-192736P	20000328
		Provisional	US 2000-218246P	20000714
		CIP of	US 2001-818780	20010328
			US 2001-906179	20010716
US 6677146	B1	Provisional	US 2000-192736P	20000328
			US 2001-818780	20010328
JP 2004508018	W		WO 2001-US22395	20010716
			JP 2002-512422	20010716

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001078935	A	Based on	WO 2002006532
EP 1301631	A1	Based on	WO 2002006532
JP 2004508018	W	Based on	WO 2002006532

PRIORITY APPLN. INFO: US 2001-818780 20010328; US 2000-218246P 20000714; US 2000-192736P 20000328; US 2001-906179 20010716
AN 2002-164785 [21] WPIDS
CR 2001-611633 [70]

Searcher : Shears 571-272-2528

AB WO 200206532 A UPAB: 20040324
NOVELTY - Nucleic acid encoding a DNA polymerase III holoenzyme delta subunit from bacteria, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a method (M1) for identifying a bacterial DNA polymerase holoenzyme delta subunit protein from at least one completely sequenced genome comprising:

(a) providing a database of sequence information for a plurality of different organisms;

(b) setting an inclusion threshold to a level sufficient to minimize the number of required iterations;

(c) selecting the organisms to be searched where the selected organisms are candidate organisms;

(d) providing the amino acid sequence of the delta subunit protein from a reference organism;

(e) comparing the sequences of the candidate organisms and the reference organism;

(f) excluding known DnaX proteins and known delta' proteins from further steps;

(g) selecting proteins comprising between 300 and 400 amino acids;

(h) selecting a delta candidate from a candidate organism comprising selecting sequence with the lowest E score from the candidate organism; and

(i) optionally repeating steps (e)-(g) where the sequences of the candidate organisms are sequences selected in step (h), where a bacterial DNA polymerase holoenzyme delta subunit protein may be identified;

(2) a method (M2) for identifying a delta protein from at least one partially sequenced genome comprising identifying a delta protein according to M1, where the selecting of step (c) comprises selecting all organisms in the database for search which are not completely sequenced;

(3) a method (M3) for identifying a bacterial DNA polymerase holoenzyme delta protein from at least one completely sequenced genome;

(4) a bacterial DNA polymerase III holoenzyme delta subunit protein identified by M1 or M3;

(5) a method for identifying a delta protein from at least one target organism comprising identifying a delta protein from an evolutionarily related organism, and performing a search for a similar sequence in the sequence of the target organism;

(6) an isolated bacterial DNA polymerase delta subunit protein, where the delta subunit protein is not a member of the group consisting of an E. coli delta subunit protein, a Haemophilis influenzae delta subunit protein, and a Neisseria meningitides delta subunit protein;

(7) an isolated bacterial DNA polymerase delta subunit protein, where the delta subunit protein is not a member of the group consisting of a gamma division of proteobacteria delta subunit protein and a beta division of proteobacteria delta subunit protein;

(8) an isolated bacterial DNA polymerase delta subunit protein, where the delta subunit protein is a gram-positive bacteria delta subunit protein, where the delta subunit protein is a member of an S. pyogenes delta subunit protein, an S. aureus delta subunit

protein, and an S. pneumoniae delta subunit protein;

(9) an isolated bacterial DNA polymerase delta subunit protein, where the delta subunit protein is a phylum Firmicutes delta subunit protein;

(10) an isolated bacterial DNA polymerase delta subunit protein (P1), where the delta subunit protein is selected from Bacillus subtilis, Aquifex aeolicus, or Thermatoga maritima delta subunit protein;

(11) an antibody (AB1), where the antibody is capable of specifically binding to at least one antigenic determinant on the protein encoded by P1;

(12) a method (M4) for producing anti-DNA polymerase III delta subunit antibodies;

(13) a method for detecting DNA polymerase III delta subunit protein;

(14) an isolated nucleic acid (N1) selected from:

(a) an isolated bacterial nucleic acid molecule comprising a sequence encoding:

(i) a protein selected from one of the 53 amino acid sequences (S1) defined in the specification; or

(ii) a protein selected from a protein having at least 95% sequence identity to an amino acid sequence of (i); and

(b) an isolated bacterial nucleic acid molecule which is fully complementary to any the nucleic acid molecule in (a);

(15) a recombinant molecule comprising at least a portion of a bacterial DNA polymerase III holA nucleic acid molecule of N1;

(16) recombinant cells comprising at least a portion of a bacterial DNA polymerase III holA nucleic acid molecule of N1;

(17) a method (M5) for detection of nucleic acid molecules encoding at least a portion of DNA polymerase III delta subunit in a biological sample;

(18) a method for detecting DNA polymerase III delta subunit expression, including expression of modified or mutated DNA polymerase III delta subunit proteins or gene sequences;

(19) a method of screening (M6) or identifying (M7) a compound that modulates the activity of a DNA polymerase III replicase;

(20) a method (M8) of identifying compounds that modulate the activity of a DnaX complex and a beta subunit in stimulating a DNA polymerase replicase;

(21) a method (M9) to identify compounds that modulate the ability of a beta subunit and a DnaX complex (or a subunit or subassembly of the DnaX complex) to interact;

(22) a method (M10) to identify compounds that modulate the ability of a DnaX complex (or a subassembly of the DnaX complex) to assemble a beta subunit onto a DNA molecule;

(23) a method (M11) to identify compounds that modulate the dATP/ATP binding activity of a DnaX complex or a DnaX complex subunit (e.g. tau subunit);

(24) a method (M12) to identify compounds that modulate the dATP/ATP activity of a DnaX complex or a DnaX complex subunit (e.g. tau subunit);

(25) a method (M13) for identifying compound that modulate the activity of a DNA polymerase replicase;

(26) a method (M14) to identify compound that modulate the ability of a delta subunit and the delta' and/or DnaX subunit to interact;

(27) a compound that modulates the activity of a DNA polymerase III replicase identified by M6-M14;

(28) a method (M15) of synthesizing a DNA molecule;

(29) a method (M16) of amplifying a double-stranded DNA molecule;

(30) a method (M17) of amplifying nucleic acid sequences; and

(31) a method (M18) of synthesizing DNA which comprises utilizing one or more polypeptides comprising an amino acid sequence having at least 95% sequence identity to an amino acid sequence from S1.

ACTIVITY - Antibacterial; Tuberculostatic; Antileprotic.

No biological data given.

MECHANISM OF ACTION - DNA-Polymerase-Inhibitor-III.

USE - The methods are useful for screening for bacterial DNA polymerase holoenzyme delta subunit proteins and agents that modulate their activity. The agents are useful in the treatment of bacterial infections e.g. S. pyogenes, S. aureus, S. pneumoniae, Mycoplasma, Yersinia, Corynebacterium, Salmonella (claimed), Mycobacterium tuberculosis or M. leprae.

ADVANTAGE - Provides a convenient means of identifying compounds which modulate DNA replication in bacteria and therefore provide antibacterial targets, and which are also useful for amplification of DNA.

Dwg.0/26

L6 ANSWER 12 OF 33 MEDLINE on STN DUPLICATE 1

ACCESSION NUMBER: 2002383207 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12126905
TITLE: Co-immunisation with a plasmid DNA cocktail primes mice against anthrax and plague.
AUTHOR: Williamson E D; Bennett A M; Perkins S D; Beedham R J; Miller J; Baillie L W J
CORPORATE SOURCE: Defence Science and Technology Laboratory, Porton Down, Salisbury, Wiltshire SP4 OJQ, UK.. dewilliamson@dstl.gov.uk
SOURCE: Vaccine, (2002 Jul 26) 20 (23-24) 2933-41. Journal code: 8406899. ISSN: 0264-410X.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200302
ENTRY DATE: Entered STN: 20020720
Last Updated on STN: 20030221
Entered Medline: 20030219

AB The protective antigen (PA) of Bacillus anthracis and the **V antigen** of Yersinia **pestis** are potent immunogens and candidate vaccine sub-units. When plasmid DNA encoding either PA or **V antigen** was used to immunise the Balb/c mouse, a low serum IgG titre was detected (log (10)1.0 or less) which was slightly increased by boosting with plasmid DNA. However, when mice immunised with plasmid DNA were later boosted with the respective recombinant **protein, a** significant increase in titre (up to 100-fold) was observed. Mice primed with a combination of each plasmid and boosted with a combination of the recombinant proteins, were fully protected (6/6) against challenge

with Y. **pestis**. This compared favourably with mice primed only with plasmid DNA encoding the **V antigen** and boosted with rV, which were partially protected (3/6) against homologous challenge or with mice primed and boosted with plasmid DNA encoding the **V antigen** which were poorly protected (1/6). Combined immunisation with the two plasmid DNA constructs followed by boosting with a combination of the encoded recombinant proteins enhanced the protective immune response to Y. **pestis** compared with priming only with plasmid DNA encoding the **V antigen** and boosting with rV. This enhancement may be due to the effect of CpG motifs known to be present in the plasmid DNA construct encoding PA.

L6 ANSWER 13 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-639089 [73] WPIDS
DOC. NO. CPI: C2001-189029
TITLE: Composition useful for intra-nasal administration of vaccines for treating infection comprises agent encapsulated within microspheres having polymer of specific diameter and molecular weight.
DERWENT CLASS: A96 B04
INVENTOR(S): ALPAR, H O; EYLES, J E; WILLIAMSON, E D
PATENT ASSIGNEE(S): (MINA) UK SEC FOR DEFENCE
COUNTRY COUNT: 94
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001070200	A1	20010927	(200173)*	EN	20
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2001039407	A	20011003	(200210)		
EP 1265598	A1	20021218	(200301)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
JP 2003527413	W	20030916	(200362)		20

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001070200	A1	WO 2001-GB1248	20010322
AU 2001039407	A	AU 2001-39407	20010322
EP 1265598	A1	EP 2001-914018	20010322
		WO 2001-GB1248	20010322
JP 2003527413	W	JP 2001-568398	20010322
		WO 2001-GB1248	20010322

FILING DETAILS:

PATENT NO	KIND	PATENT NO

AU 2001039407 A Based on WO 2001070200
EP 1265598 A1 Based on WO 2001070200
JP 2003527413 W Based on WO 2001070200

PRIORITY APPLN. INFO: GB 2001-1094 20010116; GB 2000-6770 20000322

AN 2001-639089 [73] WPIDS

AB WO 200170200 A UPAB: 20011211

NOVELTY - Pharmaceutical composition comprises an agent (1) capable of generating a biological effect. A first amount of (1) is encapsulated within microspheres and a second amount of (1) is in a form having higher bioavailability than the first amount. The microspheres comprise polymer having a molecular weight in excess of 94 kDa and a maximum diameter of 20 mu m.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for the preparation of a pharmaceutical composition which comprises encapsulating (1) in a polymeric material having high molecular weight to form microspheres with a mean diameter of less than 20 mu m and then combining the microspheres with a further amount of (1) in a more highly bioavailable form.

ACTIVITY - Antibacterial.

The **V antigen** (of Yersinia **pestis** expressed as a fusion of **protein** with glutathione-s-transferase (GST) in Escherichia coli) (4.2 mg) and lyophilized F1 antigen (5.9 mg) was suspended in an aqueous 2.5% solution of polyvinyl alcohol (PVA) 13-23 KDa (0.5 ml; 88% hydrolyzed). This suspension was mixed with poly-L-lactide (250 mg, molecular weight 100 KDa) dissolved in dichloromethane (DCM) (5 ml) and the mixture sonicated for 2 minutes at 60W on ice. The resultant primary emulsion was added to a secondary aqueous phase (75 ml) containing PVA (5 w/v%) and stirred for 8 minutes. The solvent was evaporated at ambient temperature, and the resultant microspheres (MDVF) were recovered and then lyophilized. Free F1 and V **proteins** were added to a suspension of MDVF microspheres in sterile saline.

Dosage units were prepared comprising spheres containing 18-20 mu g of each **protein** (maximum 40 mug of **protein**) and 20 mu g of each of the free **proteins**. The total of F1 and V delivered was 40 mu g per animal. Mice were dosed nasally on one occasion only with a suspension of these microspheres, delivered in phosphate-buffered saline. Control mice received empty spheres prepared similarly but without encapsulating **protein** and mixed with free F1 and V **proteins** to give total dose per mouse of F1 (40 mu g) + V (40 mu g). Immunized mice were challenged subcutaneously at day 60 after the single primary dose with 104 cfu of virulent Yersinia **pestis** and at day 74 with 106 cfu Y. **pestis**. Survival of the immunized mice was: 10/10 at 104 cfu Y. **pestis** and 9/10 at 106 cfu Y. **pestis** for the test; and 4/10 at 104 cfu Y. **pestis** and 3/10 at 106 cfu Y. **pestis** for the control, respectively. The results showed that the test showed good survival rates as compared to the control.

MECHANISM OF ACTION - None given in source material.

USE - Used for intra-nasal administration of vaccines to mucosal surfaces in a single shot vaccination for treating or protecting against infection (claimed).

ADVANTAGE - (1) Generates a protective immune response in an

animal to which it is administered against Y. **pestis**. The microencapsulated formulation produces high levels of efficacy when administered to the mucosal surface.
Dwg.0/0

L6 ANSWER 14 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2000-579475 [54] WPIDS
CROSS REFERENCE: 2000-587609 [55]
DOC. NO. CPI: C2000-172552
TITLE: Polycationic polysaccharides e.g. chitin derivatives are used as immunostimulants in vaccines against tetanus, diphtheria or Yersinia **Pestis** suitable for intranasal administration, with antigens of Y. **Pestis**
.
DERWENT CLASS: A96 B05
INVENTOR(S): ALPAR, H O; BAILLIE, L W J; EYLES, J E; SOMAVARAPU, S; WILLIAMSON, E D
PATENT ASSIGNEE(S): (MINA) UK SEC FOR DEFENCE
COUNTRY COUNT: 90
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000056362	A2	20000928	(200054)*	EN	34
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000034435	A	20001009	(200103)		
EP 1163002	A2	20011219	(200206)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
AU 755502	B	20021212	(200305)		
JP 2002540077	W	20021126	(200307)		33
NZ 514320	A	20031219	(200404)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000056362	A2	WO 2000-GB1118	20000323
AU 2000034435	A	AU 2000-34435	20000323
EP 1163002	A2	EP 2000-912788	20000323
		WO 2000-GB1118	20000323
AU 755502	B	AU 2000-34435	20000323
JP 2002540077	W	JP 2000-606266	20000323
		WO 2000-GB1118	20000323
NZ 514320	A	NZ 2000-514320	20000323
		WO 2000-GB1118	20000323

FILING DETAILS:

PATENT NO	KIND	PATENT NO

AU 2000034435	A	Based on	WO 2000056362
EP 1163002	A2	Based on	WO 2000056362
AU 755502	B	Previous Publ.	AU 2000034435
		Based on	WO 2000056362
JP 2002540077	W	Based on	WO 2000056362
NZ 514320	A	Based on	WO 2000056362

PRIORITY APPLN. INFO: GB 1999-6696 19990324; GB 1999-6694 19990324

AN 2000-579475 [54] WPIDS

CR 2000-587609 [55]

AB WO 200056362 A UPAB: 20040115

NOVELTY - Use of a polycationic carbohydrate (I) or a derivative as an immunostimulant, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(1) a composition (A) containing (I) and a biologically active agent (II) capable of generating a protective immune response; and

(2) methods for producing (A) comprising encapsulating (II) in a first material in the presence of (I) or forming a microsphere, depositing a layer of (I) on it and then adsorbing (II).

ACTIVITY - Immunostimulant.

MECHANISM OF ACTION - None given.

USE - (I) is used as an immunostimulant and (II) is used to generate a protective immune response against tetanus, diphtheria or Y. **pestis**, in the form of a vaccine (all claimed).

ADVANTAGE - (I) act as adjuvants, producing an increase in the immune response to (II) which persists for considerably longer than would be expected as a result only of absorption enhancing effects.

Dwg.0/6

L6 ANSWER 15 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2000-514762 [46] WPIDS

DOC. NO. CPI: C2000-153563

TITLE: A transdermal vaccine for inducing a protective or tolerogenic immune response on human or animal skin comprises a transdermal carrier, a compound which specifically releases or induces (anti-) cytokine activity and an antigen or allergen.

DERWENT CLASS: B04 B07 C06 D16

INVENTOR(S): CEVC, G; CHOPRA, A

PATENT ASSIGNEE(S): (IDEA-N) IDEA AG

COUNTRY COUNT: 34

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000044349	A1	20000803	(200046)*	EN	79
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: AU BR CA CN HU JP KR MX US					
EP 1031346	A1	20000830	(200047)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
AU 2000027988	A	20000818	(200057)		
EP 1146858	A1	20011024	(200171)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					

BR 2000007749 A 20011113 (200201)
EP 1031346 B1 20020502 (200230) EN
R: AT BE CH DE DK ES FI FR GB GR IE IT LI LT LU LV MC NL PT RO SE SI
KR 2001112252 A 20011220 (200239)
DE 69901377 E 20020606 (200245)
CN 1342066 A 20020327 (200247)
HU 2002000315 B 20020528 (200249)
ES 2173678 T3 20021016 (200279)
JP 2002535350 W 20021022 (200301) 93
MX 2001007657 A1 20030601 (200417)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000044349	A1	WO 2000-EP597	20000126
EP 1031346	A1	EP 1999-101479	19990127
AU 2000027988	A	AU 2000-27988	20000126
EP 1146858	A1	EP 2000-906231	20000126
		WO 2000-EP597	20000126
BR 2000007749	A	BR 2000-7749	20000126
		WO 2000-EP597	20000126
EP 1031346	B1	EP 1999-101479	19990127
KR 2001112252	A	KR 2001-709479	20010727
DE 69901377	E	DE 1999-601377	19990127
		EP 1999-101479	19990127
CN 1342066	A	CN 2000-804453	20000126
HU 2002000315	B	WO 2000-EP597	20000126
		HU 2002-315	20000126
ES 2173678	T3	EP 1999-101479	19990127
JP 2002535350	W	JP 2000-595653	20000126
		WO 2000-EP597	20000126
MX 2001007657	A1	WO 2000-EP597	20000126
		MX 2001-7657	20010727

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000027988	A	Based on	WO 2000044349
EP 1146858	A1	Based on	WO 2000044349
BR 2000007749	A	Based on	WO 2000044349
DE 69901377	E	Based on	EP 1031346
HU 2002000315	B	Based on	WO 2000044349
ES 2173678	T3	Based on	EP 1031346
JP 2002535350	W	Based on	WO 2000044349
MX 2001007657	A1	Based on	WO 2000044349

PRIORITY APPLN. INFO: EP 1999-101479 19990127
AN 2000-514762 [46] WPIDS
AB WO 200044349 A UPAB: 20000921
NOVELTY - A transdermal vaccine (I) comprising a transdermal carrier, a compound which specifically releases or induces (anti-) cytokine activity and a (mixture of) antigen or allergen, is new.
DETAILED DESCRIPTION - A transdermal vaccine comprises:

(a) a transdermal carrier;

(b) a compound which specifically releases or induces cytokine or anti-cytokine activity or exerts such an activity itself; and

(c) a (mixture of) antigen or allergen.

The transdermal carrier is a penetrant, suspended or dispersed in an aqueous solvent, in the form of a minute fluid droplet surrounded by a membrane like coating of one or several layers of at least two different substances or two different forms of a substance with the tendency to aggregate. The substances differ by at least a factor of 10 in solubility in a preferably aqueous , liquid medium, so that the average diameter of homoaggregates of the more soluble substances or heteroaggregates of both substances is smaller than the average diameter of the homoaggregates of the less soluble substance. The more soluble component tends to solubilize the penetrating droplet. The content of this component amounts to up to 99 mol-% of the concentration required to solubilize the droplet, or to 99 mol-% of the saturating concentration in the unsolubilized droplet, whichever is highest. The elastic deformation energy of the droplet surrounding the membrane like coating is at least 5 multiply lower, more preferably more than 10 multiply lower than that of the red blood cells or of the phospholipid bilayer with fluid aliphatic chains.

INDEPENDENT CLAIMS are also included for the following:

(1) a kit comprising, in a bottled or otherwise packaged form, at least one dose of (I); and

(2) generating a protective immune response on a mammal with (I).

ACTIVITY - Immunostimulant.

No supporting biological data given.

MECHANISM OF ACTION - Vaccine.

No supporting biological data given.

USE - For inducing a protective or tolerogenic immune response on human or animal skin (claimed).

ADVANTAGE - The vaccine provides immunization without local irritation.

Dwg.0/14

L6 ANSWER 16 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2000-422851 [36] WPIDS

DOC. NO. CPI: C2000-127873

TITLE: New isolated bacterial signaling factor, useful e.g. for detecting potential antibacterial agents, interacts with LuxQ protein to induce expression of a luminescence operon in Vibrio harveyi.

DERWENT CLASS: B04 B05 D16

INVENTOR(S): BASSLER, B; SURETTE, M G; BASSLER, B L

PATENT ASSIGNEE(S): (UYPR-N) UNIV PRINCETON; (UYTE-N) UNIV TECHNOLOGIES INT; (UYTE-N) UNIV TECHNOLOGIES INT INC; (BASS-I) BASSLER B L; (SURE-I) SURETTE M G; (USGO) US GOVERNMENT

COUNTRY COUNT: 88

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000032152	A2	20000608	(200036)*	EN	196

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC
MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK
LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG
SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

AU 2000019338 A 20000619 (200044)
EP 1135144 A1 20010926 (200157) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI
KR 2001093800 A 20011029 (200223)
US 2002072052 A1 20020613 (200243)
US 2002107364 A1 20020808 (200254)#
US 2003096330 A1 20030522 (200336)
US 2003096376 A1 20030522 (200336)
US 2003104606 A1 20030605 (200339)
US 2003148414 A1 20030807 (200358)
US 2003166289 A1 20030904 (200359)
JP 2003526327 W 20030909 (200360) 150
US 2004033548 A1 20040219 (200414)
MX 2001005448 A1 20030401 (200415)
US 6720415 B2 20040413 (200425)

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
WO 2000032152	A2		WO 1999-US28751	19991202
AU 2000019338	A		AU 2000-19338	19991202
EP 1135144	A1		EP 1999-963011	19991202
			WO 1999-US28751	19991202
KR 2001093800	A		KR 2001-706954	20010602
US 2002072052	A1	Provisional	US 1998-110570P	19981202
		Div ex	US 1999-453976	19991202
			US 2001-961452	20010921
US 2002107364	A1	Div ex	US 1999-453976	19991202
			US 2001-961453	20010921
US 2003096330	A1	Provisional	US 1998-110570P	19981202
		Div ex	US 1999-453976	19991202
			US 2001-961507	20010921
US 2003096376	A1	Provisional	US 1998-110570P	19981202
		Div ex	US 1999-453976	19991202
			US 2001-961637	20010921
US 2003104606	A1	Provisional	US 1998-110570P	19981202
		Div ex	US 1999-453976	19991202
			US 2001-961458	20010921
US 2003148414	A1	Provisional	US 1998-110570P	19981202
			US 1999-453976	19991202
US 2003166289	A1	Provisional	US 1998-110570P	19981202
		Div ex	US 1999-453976	19991202
		Cont of	US 2001-961507	20010921
			US 2003-409783	20030407
JP 2003526327	W		WO 1999-US28751	19991202
			JP 2000-584850	19991202
US 2004033548	A1	Provisional	US 1998-110570P	19981202
		Div ex	US 1999-453976	19991202

Searcher : Shears 571-272-2528

	CIP of	US 2001-961507	20010921
		US 2003-387345	20030310
MX 2001005448 A1		WO 1999-US28751	19991202
		MX 2001-5448	20010531
US 6720415 B2	Provisional	US 1998-110570P	19981202
		US 1999-453976	19991202

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000019338 A		Based on	WO 2000032152
EP 1135144	A1	Based on	WO 2000032152
JP 2003526327 W		Based on	WO 2000032152
MX 2001005448 A1		Based on	WO 2000032152

PRIORITY APPLN. INFO: US 1998-110570P 19981202; US 1999-453976 19991202; US 2001-961452 20010921; US 2001-961453 20010921; US 2001-961507 20010921; US 2001-961637 20010921; US 2001-961458 20010921; US 2003-409783 20030407; US 2003-387345 20030310

AN 2000-422851 [36] WPIDS

AB WO 200032152 A UPAB: 20000801

NOVELTY - An isolated bacterial extracellular signaling factor (A) comprising at least one polar, uncharged molecule, having a molecular weight below 1000 kDa, and interacting with LuxQ protein to induce expression of a Vibrio harveyi operon, comprising the luminescence genes luxCDABE, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated bacterial signaling factor, comprising formula (I) or (II)

(2) an optically active isomer of (II);

(3) method for identifying a compound (III) that regulates activity of a signaling factor (SF), comprising:

(a) contacting SF with (III);

(b) measuring the activity of SF in the presence and absence of (III), and comparing the values; and

(c) identifying a compound regulating the activity of (III);

(4) method for detecting an autoinducer molecule (IV) in a sample, comprising:

(a) contacting the sample with a bacterial cell, or extract, comprising biosynthetic pathways that produce light in response to an exogenous autoinducer, the cell has at least two alterations in gene loci that participate in autoinducer pathways, the alterations inhibit detection of one autoinducer and the production of another; and

(b) measuring the light produced by the cell, or extract;

(5) bacterial cell having at least two distinct alterations in gene loci involved in autoinducer pathways, the alterations inhibit detection of one autoinducer and the production of another;

(6) method for identifying an autoinducer analog (V) that regulates activity of (V), comprising:

(a) contacting a bacterial call, or extract, comprising biosynthetic pathways which produces light in response to an

autoinducer, with (V); and

(b) comparing the amount of light produced by the cell, or extract, in the presence and absence of (V), a change in the production indicates a (V) which regulates autoinducer activity;

(7) production of autoinducer-2 (IV-2) by reacting S-adenosylhomocysteine (SAH) or S-ribosylhomocysteine (SRH) with a LuxS protein;

(8) production of autoinducer-2, comprising:

(a) contacting SAH with a 5'-methylthioadenosine/S-adenosylhomocysteine nucleosidase (pfs) protein, to promote conversion of SAH to SRH; and

(b) contacting SRH with LuxS protein, to promote conversion of SRH to autoinducer-2;

(9) method for detected a (IV)-associated bacterial biomarker, comprising:

(a) contacting at least one bacterial cell with an autoinducer molecule, to promote induction of a bacterial biomarker; and

(b) detecting the bacterial biomarker;

(10) method for detecting a target compound (VI) that binds to LuxP protein, comprising contacting the LuxP protein with the target compound, and detecting the binding of the compound to LuxP;

(11) method for regulating formation of bacterial biofilm by treatment with a compound that regulates (IV-2) activity, comprising contacting a bacterium capable of biofilm formation with a compound capable of regulating biofilm formation, the compound regulates (IV-2) activity;

(12) isolated nucleic acid (VII) that encodes a protein (VIII) necessary for biosynthesis of (A);

(13) a recombinant DNA comprising a vector that contains (VII);

(14) polypeptides produced by expressing (VII);

(15) an isolated nucleic acid (IX) having a 519, 516, or 492 nucleotide sequence, all fully defined in the specification, or a variant or natural mutant of the sequence, a sequence hybridizing with it, or its complement, or a sequence encoding a 172, 171, or 164 residue amino acid sequence, all fully defined in the specification;

(16) a recombinant DNA molecule comprising a vector containing (IX);

(17) a polypeptide produced by expression of (IX);

(18) purifying (A), comprising:

(a) growing bacterial cells that produce (A);

(b) separating the cells from the culture medium;

(c) incubating the cells in a solution having high osmolarity, under conditions promoting production and secretion of protein from the cells;

(d) separating the cells from the solution; and

(e) purifying the factor from the solution;

(19) purified (A) from the method of (18); and

(20) kit comprising the cells of (5).

R1, R2, R3, and R4 = independently e.g. hydrido, halo, alkyl, haloalkyl, cycloalkyl, cycloalkenyl, heterocyclyl, methyl, cyano, alkoxycarbonyl, amino, carboxyl, hydroxyl, formyl, nitro, fluoro, chloro, bromo,aryl, heteroaryl, arakyl, heteroarylalkyl, alkylsulfonyl, hydroxyalkyl, mercaptoalkyl, alkoalkyl, aryloxyalkyl, heteroaryloxyalkyl, aralkyloxyalkyl, heteroarylalkyloxyalkyl, alkylthioalkyl, arylthioalkylphenyl, cyclohexyl, furyl, imidazolyl,

pentyl, hexyl, trichloromethyl, dichloropropyl, n-butoxy, methylcarbonyl, ethanoxycarbonylethyl, thienyl, or methylenedioxy.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - (A) regulators.

USE - (A) are used to identify specific regulators which are used to regulate production of bacterial biofilm, and as potential antibacterial agents, e.g. for treating infections in fish caused by V. angufflarum or Aeromonas species. (A) can also be used as bacterial culture additives to stimulate cellular metabolism, growth or repair, e.g. for cultures being used to produce antibiotics. Genes and their derived proteins involved in synthesis of (A) are also useful as therapeutic targets, including for development of vaccines, which may have a broad spectrum of activity since common antigenic determinants may be present in the LuxP and LuxQ proteins. luxS DNA, or its fragments, are useful as probes and primers and for recombinant production of proteins, and which are used to raise antibodies or to produce crystals for structure determination, used in rational drug design.

Dwg.0/16

L6 ANSWER 17 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2000-224145 [19] WPIDS

DOC. NO. CPI: C2000-068326

TITLE: New saponin derivatives with substituted triterpene aglycone core, used to potentiate antigens in vaccines against bacteria, viruses, protozoa and tumors.

DERWENT CLASS: A96 B01 B03 C02 D16

INVENTOR(S): MARCIANI, D J; PRESS, J B

PATENT ASSIGNEE(S): (MARC-I) MARCIANI D J; (PRES-I) PRESS J B; (GALE-N) GALENICA PHARM INC

COUNTRY COUNT: 23

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000009075	A2	20000224	(200019)*	EN	99
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: AU CA JP NO					
AU 9955655	A	20000306	(200030)		
US 6262029	B1	20010717	(200142)		

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
WO 2000009075	A2		WO 1999-US18635	19990813
AU 9955655	A		AU 1999-55655	19990813
US 6262029	B1	Provisional	US 1998-96691P	19980814
			US 1999-373660	19990813

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9955655	A	Based on	WO 2000009075

PRIORITY APPLN. INFO: US 1998-96691P 19980814; US 1999-373660 19990813
AN 2000-224145 [19] WPIDS
AB WO 200009075 A UPAB: 20000419
NOVELTY - Saponin derivatives comprising a triterpene aglycone core substituted at positions 3 and 28 with a mono-or oligosaccharide are new.

DETAILED DESCRIPTION - A compound comprising a triterpene aglycone core wherein the core has a mono or oligo-saccharide covalently attached at position 3, a fucosyl residue covalently attached at position 28, wherein the fucosyl residue is optionally substituted with a mono- or oligo-saccharide and has a lipophilic group other than 3,5-dihydroxy-6-methyloctanoyl covalently attached to the 4 position, and a formyl or formylmethyl group covalently attached to the core at a position other than the 3 or 28 position.

An INDEPENDENT CLAIM is also included for a vaccine for human or veterinary use which comprises:

(a) one or more bacterial, viral, protozoal or tumor associated antigens; and

(b) one or more of the claimed saponin derivatives.

ACTIVITY - Immunopotentiators.

MECHANISM OF ACTION - None given.

USE - (I) are used as adjuvants in vaccine compositions used to vaccinate against bacteria, viruses, protozoa or tumors.

Dwg.0/2

L6 ANSWER 18 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2000-160641 [14] WPIDS
CROSS REFERENCE: 1999-287493 [24]; 1999-302270 [25]; 1999-302271 [25]; 1999-468598 [39]; 2000-012451 [01]
DOC. NO. CPI: C2000-050131
TITLE: Use of immunoactive agents in manufacture of medicaments for use in particulate delivery systems.
DERWENT CLASS: B04 B07 D16
INVENTOR(S): BOT, A I; DELLAMARY, L A; KABALNOV, A; SCHUTT, E G; TARARA, T E; WEERS, J G
PATENT ASSIGNEE(S): (INHA-N) INHALE THERAPEUTIC SYSTEMS INC; (ALLI-N) ALLIANCE PHARM CORP; (NEKT-N) NEKTAR THERAPEUTICS
COUNTRY COUNT: 87
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000000215	A1	20000106	(200014)*	EN	89
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW					
AU 9935469	A	20000117	(200026)		
EP 1091755	A1	20010418	(200123)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
KR 2001053299	A	20010625	(200173)		

MX 2000012613	A1	20010601 (200235)	
US 6565885	B1	20030520 (200336)	
AU 760537	B	20030515 (200337)	
US 6630169	B1	20031007 (200374)	
JP 2003535017	W	20031125 (200380)	139

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
WO 2000000215	A1		WO 1999-US6855	19990331
AU 9935469	A		AU 1999-35469	19990331
			WO 1999-US6855	19990331
EP 1091755	A1		EP 1999-917320	19990331
			WO 1999-US6855	19990331
KR 2001053299	A		KR 2000-715026	20001229
MX 2000012613	A1		MX 2000-12613	20001215
US 6565885	B1	Provisional	US 1997-60337P	19970929
		CIP of	US 1998-106932	19980629
		CIP of	US 1998-133848	19980814
		Cont of	WO 1998-US20602	19980929
			US 1998-219736	19981222
AU 760537	B		AU 1999-35469	19990331
US 6630169	B1		WO 1999-US6855	19990331
			US 2000-720536	20001222
JP 2003535017	W		WO 1999-US6855	19990331
			JP 2000-556800	19990331

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9935469	A	Based on	WO 2000000215
EP 1091755	A1	Based on	WO 2000000215
AU 760537	B	Previous Publ.	AU 9935469
		Based on	WO 2000000215
US 6630169	B1	Based on	WO 2000000215
JP 2003535017	W	Based on	WO 2000000215

PRIORITY APPLN. INFO: US 1998-219736 19981222; US 1998-106932 19980629; US 1998-133848 19980814; WO 1998-US20602 19980929; WO 1998-US20603 19980929; WO 1998-US20613 19980929; WO 1998-US20615 19980929; US 1998-218209 19981222; US 1998-218212 19981222; US 1998-218213 19981222; US 1997-60337P 19970929; US 2000-720536 20001222

AN 2000-160641 [14] WPIDS

CR 1999-287493 [24]; 1999-302270 [25]; 1999-302271 [25]; 1999-468598 [39]; 2000-012451 [01]

AB WO 200000215 A UPAB: 20031211

NOVELTY - Use of immunoactive agents in the production of medicines comprising particles associated with at least 1 immunoactive agent, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) system for administration of bioactive agent to a subject comprising an administration apparatus with a powder containing reservoir, where the powder comprises particles associated with bioactive agents;

(2) a composition comprising perforated microstructures with a bulk density of less than 0.5 g/cm3, that are associated with immunoactive agents; and

(3) use of bioactive agents in the production of medicines comprising particles associated with at least 1 immunoactive agent.

ACTIVITY - Immunomodulatory; antibacterial; antiviral; amebicide; protozoacide; fungicide.

MECHANISM OF ACTION - Vaccine; gene therapy.

USE - The compounds produced using the immuno- or bioactive agents are used to modulate the immune system, e.g. by eliciting an immune response to foreign antigens or pathogenic particles, inducing localized or systemic passive immunity, stimulating immune response or down-regulating immune reaction (claimed). The compositions are used in inhaled vaccines (claimed) comprising target antigens such as hemagglutinin, nucleoprotein, M **protein**, F **protein**, HBS **protein**, gp120 **protein** of HIV, nef **protein** of HIV or listertiolysine in influenza virus, cytomegalovirus, herpes virus (HSV-1 and 2), vaccinia virus, hepatitis virus (including hepatitis A, B, C, D), varicella virus, rotavirus, papilloma virus, measles virus, Epstein-Barr virus, coxsackie virus, polio virus, enterovirus, adenovirus, retrovirus (including HIV-1 and -2), respiratory syncytial virus, rubella virus, streptococci (e.g. S. pneumoniae), **staphylococci** (e.g. S. aureus), Hemophilus (e.g. H. influenzae), Listeria (e.g. L. monocytogenes), Klebsiella, Gram-negative bacilli, Escherichia (e.g. E. coli), Salmonella (e.g. S. typhimurium), Vibrio (e.g. V. cholerae), Yersinia (e.g. Y. **pestis** or Y. enterocoliticus), Enterococci, Neisseria (e.g. N. meningitidis), Corynebacterium (e.g. C. diphtheriae), Clostridium (e.g. C. tetani), Mycoplasma (e.g. M. tuberculosis), Candida, Aspergillus, Mucor, toxoplasma, amoeba, malarial parasites, trypanosomal parasites, leishmanial parasites and helminths. The compositions may also be used to establish passive and active immunity via inhalational therapies and for hormonal regulation or gene therapy.

ADVANTAGE - The compounds produced are stable and do not require freezing or refrigeration to maintain activity. The compounds also show reduced throat deposition.

DESCRIPTION OF DRAWING(S) - The diagram shows systemic antibody responses to IgG administered intratracheally.

Dwg.1/15

L6 ANSWER 19 OF 33 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 2

ACCESSION NUMBER: 97333111 EMBASE
DOCUMENT NUMBER: 1997333111
TITLE: Regions of Yersinia **pestis V antigen** that contribute to protection against plague identified by passive and active immunization.
AUTHOR: Hill J.; Leary S.E.C.; Griffin K.F.; Williamson E.D.; Titball R.W.
CORPORATE SOURCE: J. Hill, Microbiology, CBD Porton Down, Salisbury,

Wiltshire SP4 0JQ, United Kingdom.
100432.3200@compuserve.com
SOURCE: Infection and Immunity, (1997) 65/11 (4476-4482).
Refs: 27
ISSN: 0019-9567 CODEN: INFIBR
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
026 Immunology, Serology and Transplantation
LANGUAGE: English
SUMMARY LANGUAGE: English
AB **V antigen** of Yersinia **pestis** is a multifunctional protein that has been implicated as a protective antigen, a virulence factor, and a regulatory **protein.** **A** series of **V-antigen** truncates expressed as glutathione S- transferase (GST) fusion proteins (GST-V truncates) have been cloned and purified to support immunogenicity and functionality studies of **V antigen.** Immunization studies with GST-**V** truncates have identified two regions of **V antigen** that confer protection against Y. **pestis** 9B (a fully virulent human pneumonic plague isolate) in a mouse model for plague. A minor protective region is located from amino acids 2 to 135 (region I), and a major protective region is found between amino acids 135 and 275 (region II). In addition, analysis of IgG titers following immunization suggested that the major antigenic region of **V antigen** is located between amino acids 135 and 245. A panel of monoclonal antibodies raised against recombinant **V antigen** was characterized by Western blotting against GST-V truncates, and epitopes of most of the monoclonal antibodies were mapped to region I or II. Monoclonal antibody 7.3, which recognizes an epitope in region II, passively protected mice against challenge with 12 median lethal doses of Y. **pestis** GB, indicating that region II encodes a protective epitope. This is the first report of a **V-antigen**-specific monoclonal antibody that will protect mice against a fully virulent strain of E **pestis.** The combined approach of passive and active immunization has therefore confirmed the importance of the central region of the protein for protection and also identified a previously unknown protective region at the N terminus of **V antigen.**

L6 ANSWER 20 OF 33 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 97230287 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9119451
TITLE: Resistance to lipopolysaccharide mediated by the Yersinia **pestis V antigen** -polyhistidine fusion peptide: amplification of interleukin-10.
AUTHOR: Nedialkov Y A; Motin V L; Brubaker R R
CORPORATE SOURCE: Department of Microbiology, Michigan State University, East Lansing 48824-1101, USA.
SOURCE: Infection and immunity, (1997 Apr) 65 (4) 1196-203.
Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199704
ENTRY DATE: Entered STN: 19970506
Last Updated on STN: 19970506
Entered Medline: 19970424

AB We previously showed that injection of homogenous **staphylococcal protein A-V antigen** fusion peptide into mice delayed allograft rejection and suppressed the major proinflammatory cytokines tumor necrosis factor alpha (TNF-alpha) and gamma interferon (IFN-gamma) associated with generation of protective granulomas. This study was undertaken to determine if **V antigen** could prevent endotoxic shock, known to be mediated by excessive production of certain proinflammatory cytokines. After treatment with 50 microg of homogeneous **V antigen**-polyhistidine fusion peptide (Vh), the 50% lethal dose of purified lipopolysaccharide (LPS) in BALB/c mice immediately rose from 63 microg (normal controls) to 318 microg, fell to near baseline (71 microg) in 6 h, and then slowly rose to a maximum of 566 microg at 48 h before again returning to normal. Injected Vh alone (50 microg) promptly induced the anti-inflammatory cytokine interleukin-10 (IL-10) as well as modest levels of TNF-alpha (an inducer of IL-10) in spleen. Concomitant injection of Vh and an otherwise lethal dose of LPS (200 microg) dramatically decreased levels of TNF-alpha and IFN-gamma in the spleen and peritoneal lavage fluid as compared to values determined for LPS alone. These results would be expected if **V antigen** directly up-regulated IL-10 that is reported to generally down-regulate proinflammatory cytokines. Mice receiving 200 microg of LPS 48 h after injection of Vh exhibited patterns of cytokine synthesis similar to those observed in endotoxin-tolerant mice, a condition also reported to be mediated by IL-10. These findings suggest that **V antigen** serves as a virulence factor by amplifying IL-10, thereby repressing proinflammatory cytokines required for expression of cell-mediated immunity.

L6 ANSWER 21 OF 33 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 97266623 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9112365
TITLE: Suppression of mouse skin allograft rejection by **protein A**-Yersiniae **V antigen** fusion peptide.
AUTHOR: Motin V L; Kutas S M; Brubaker R R
CORPORATE SOURCE: Department of Microbiology, Michigan State University, East Lansing 48824-1101, USA.
SOURCE: Transplantation, (1997 Apr 15) 63 (7) 1040-2.
Journal code: 0132144. ISSN: 0041-1337.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199705
ENTRY DATE: Entered STN: 19970514
Last Updated on STN: 19970514
Entered Medline: 19970505

Searcher : Shears 571-272-2528

AB **V antigen** is an established virulence factor of Yersinia **pestis**, the causative agent of bubonic plague. Injection of homogenous **staphylococcal protein A-V antigen** fusion peptide into mice was previously found to suppress tumor necrosis factor-alpha and interferon-gamma necessary for generation of protective granulomas. Here, we show that BALB/c mice receiving daily intraperitoneal injections of 100 microg of control **protein A** initiated rejection of C57BL/6 mouse tail skin grafts after 6.2+/-1.1 days. This time doubled to 12.2+/-1.4 days upon similar administration of **protein A-V antigen** fusion peptide (P<0.001); times of total allograft retention remained constant. This finding indicates that **V antigen** can postpone inflammation known to be associated with recognition and destruction of foreign tissue by T lymphocytes.

L6 ANSWER 22 OF 33 MEDLINE on STN
ACCESSION NUMBER: 97321816 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9178518
TITLE: Effectiveness of protein A for antibody immobilization for a fiber optic biosensor.
AUTHOR: Anderson G P; Jacoby M A; Ligler F S; King K D
CORPORATE SOURCE: Center for Bio/Molecular Science and Engineering, Naval Research Laboratory, Washington, DC 20375-5348, USA.
SOURCE: Biosensors & bioelectronics, (1997) 12 (4) 329-36. Journal code: 9001289. ISSN: 0956-5663.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199707
ENTRY DATE: Entered STN: 19970805
Last Updated on STN: 19990129
Entered Medline: 19970721

AB The fiber optic biosensor performs fluoroimmunoassays at the surface of multimode optical fibers. The effectiveness of protein A, an immunoglobulin binding protein, for antibody immobilization on the surface of these fiber probes has been investigated. No difference was observed in the binding of fluorescently-labeled goat-IgG by rabbit anti-goat IgG regardless of whether the capture antibody was bound to the probe surface via protein A or covalently attached. However, in a sandwich immunoassay for the F1 antigen of Yersinia **pestis**, probes with rabbit anti-plague IgG bound to the surface via protein A generated twice the signal as probes with the antibody covalently attached. Assay regeneration was also examined with protein A probes since antibody-antigen complexes have been successfully eluted from protein A under low pH conditions. Protein A probes coated with rabbit anti-goat IgG obtained nearly identical signal levels at 500 and 5000 ng/ml of Cy5.5 goat IgG five consecutive times following regeneration with glycine-HCl, 2% acetic acid, pH 2.5.

L6 ANSWER 23 OF 33 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 97047715 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8926104

TITLE: **V antigen**-polyhistidine fusion peptide: binding to LcrH and active immunity against plague.
AUTHOR: Motin V L; Nedialkov Y A; Brubaker R R
CORPORATE SOURCE: Department of Microbiology, Michigan State University, East Lansing 48824-1101, USA.
SOURCE: Infection and immunity, (1996 Oct) 64 (10) 4313-8. Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199611
ENTRY DATE: Entered STN: 19961219
Last Updated on STN: 19961219
Entered Medline: 19961114

AB The structural gene for **V antigen** (**lcrV**) is known to be encoded within the lcrGVH-yopBD operon of the approximately 70-kb low-calcium-response or Lcr plasmid of Yersinia **pestis**. This 37-kDa monomeric peptide was reported to provide active immunity in mice, suppress inflammatory cytokines, and regulate expression of the low calcium response (Lcr+). Here we describe pVHB62, encoding a polyhistidine-**V antigen** fusion peptide (Vh) and linked LcrH. Vh underwent degradation from both the C terminus and N terminus during classical chromatographic fractionation but remained intact within two compartments during Ni2+ affinity chromatography. The first was homogeneous, capable of active immunization (mouse intravenous 50% lethal dose, > 10(7) bacteria), and stable at 4 degrees C. The second remained bound to the affinity column but could be eluted as a mixture of Vh, LcrH, and low-molecular-weight material by application of 6 M guanidine HCl. This mixture was dialyzed, denatured in 8 M urea, and again applied to the affinity column, which then hound Vh but not LcrH. The latter was recovered and renatured, and low-molecular-weight material was removed by biochemical fractionation. The resulting homogeneous LcrH bound protein AN antigen fusion peptide but not **protein A** in a sandwich enzyme-linked immunosorbent assay, and this reaction was inhibited by Vh. These observations indicate that LcrH normally binds **V antigen** in bacterial cytoplasm and suggest that only free LcrH down-regulates expression of the low calcium response.

L6 ANSWER 24 OF 33 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1995-328268 [42] WPIDS
DOC. NO. CPI: C1995-145657
TITLE: Recombinant DNA expressing Yersinia **pestis** **V antigen** - useful in oral or parenteral vaccines for protection against plague.
DERWENT CLASS: B04 C07 D16
INVENTOR(S): LEARY, S E C; TITBALL, R W; WILLIAMSON, E D; LEARY, S E
PATENT ASSIGNEE(S): (MINA) UK SEC FOR DEFENCE; (MINA) UK SEC STATE FOR DEFENCE
COUNTRY COUNT: 62
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9524475	A1	19950914	(199542)*	EN	25
RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG					
W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NL NO NZ PL PT RO RU SD SE SI SK TJ TT UA US UZ VN					
AU 9518539	A	19950925	(199601)		
EP 753061	A1	19970115	(199708)	EN	
R: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE					
JP 09511139	W	19971111	(199804)		27

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9524475	A1	WO 1995-GB481	19950306
AU 9518539	A	AU 1995-18539	19950306
EP 753061	A1	EP 1995-910622	19950306
		WO 1995-GB481	19950306
JP 09511139	W	JP 1995-523296	19950306
		WO 1995-GB481	19950306

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9518539	A	Based on	WO 9524475
EP 753061	A1	Based on	WO 9524475
JP 09511139	W	Based on	WO 9524475

PRIORITY APPLN. INFO: GB 1994-4577 19940308
AN 1995-328268 [42] WPIDS
AB WO 9524475 A UPAB: 19960115
New recombinant DNA (I) is able to transform a microorganism so that, when the microorganism is admin. orally to humans or animals, it expresses a **protein** or peptide (A) that generates a protective immune response against Yersinia **pestis**. (A) is the Y. **pestis V-antigen**, or a fragment of it that contains a protective epitope. Also new are: (1) plasmids containing (I); and (2) microorganisms transformed with (I) or the plasmids.

USE - Transformed microorganisms are useful in vaccines to protect against Y. **pestis** infection (plague).

ADVANTAGE - The transformed cells are able to colonise the gut and systemically invade the body. They stimulate both gut-associated and bronchial lymphoid tissue, providing a secretory IgA response at mucosal surfaces.

Dwg.0/0

L6 ANSWER 25 OF 33 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
ACCESSION NUMBER: 95:524409 SCISEARCH
THE GENUINE ARTICLE: RL828
TITLE: VIRG, A YERSINIA-ENTEROCOLITICA LIPOPROTEIN INVOLVED

IN CA2+ DEPENDENCY, IS RELATED TO EXSB OF PSEUDOMONAS-AERUGINOSA

AUTHOR: ALLAOUI A; SCHEEN R; DEROUVROIT C L; CORNELIS G R (Reprint)

CORPORATE SOURCE: UNIV CATHOLIQUE LOUVAIN, INT INST CELLULAR & MOLEC PATHOL, MICROBIAL PATHOGENESIS UNIT, B-1200 BRUSSELS, BELGIUM (Reprint); UNIV CATHOLIQUE LOUVAIN, INT INST CELLULAR & MOLEC PATHOL, MICROBIAL PATHOGENESIS UNIT, B-1200 BRUSSELS, BELGIUM; UNIV CATHOLIQUE LOUVAIN, FAC MED, B-1200 BRUSSELS, BELGIUM

COUNTRY OF AUTHOR: BELGIUM

SOURCE: JOURNAL OF BACTERIOLOGY, (AUG 1995) Vol. 177, No. 15, pp. 4230-4237.
ISSN: 0021-9193.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: LIFE

LANGUAGE: ENGLISH

REFERENCE COUNT: 66

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Pathogenic yersiniae require Ca2+ for growth at 37 degrees C. They harbor closely related plasmids of about 70 kb that are essential for virulence. At 37 degrees C and in the absence of Ca2+ ions, these plasmids cause a decrease in growth rate and the release of large amounts of proteins called Yops. Here we describe the virG gene of Yersinia enterocolitica; virG is located just upstream of the virF gene, which encodes the transcriptional activator of some plasmid virulence factors. Analysis of the VirG amino acid sequence suggested that virG encodes a lipoprotein, which was confirmed by [H-3]palmitate labeling of VirG-PhoA fusion **proteins**. **A** nonpolar virG mutant was constructed and found to be Ca2+ independent for growth at 37 degrees C but to still secrete Yops. This phenotype was complemented by the introduction of a plasmid harboring an intact virG gene. VirG was found to be homologous to ExsB, a protein encoded by a Pseudomonas aeruginosa gene located in the locus controlling exoenzyme S synthesis. Interestingly, the exsA gene, located just downstream of exsB, is also homologous to virF.

L6 ANSWER 26 OF 33 MEDLINE on STN DUPLICATE 6

ACCESSION NUMBER: 95347817 MEDLINE

DOCUMENT NUMBER: PubMed ID: 7622225

TITLE: Suppression of cytokines in mice by **protein A-V antigen** fusion peptide and restoration of synthesis by active immunization.

AUTHOR: Nakajima R; Motin V L; Brubaker R R

CORPORATE SOURCE: Exploratory Research Laboratories I, Daiichi Pharmaceutical Co., Ltd., Tokyo, Japan.

CONTRACT NUMBER: AI 19353 (NIAID)

SOURCE: Infection and immunity, (1995 Aug) 63 (8) 3021-9.
Journal code: 0246127. ISSN: 0019-9567.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199508

ENTRY DATE: Entered STN: 19950911
Last Updated on STN: 19950911
Entered Medline: 19950825

AB It is established that an approximately 70-kb Lcr plasmid enables Yersinia **pestis**, the causative agent of bubonic plague, to multiply in focal necrotic lesions within visceral organs of mice by preventing net synthesis of the cytokines tumor necrosis factor alpha (TNF-alpha) and gamma interferon (IFN-gamma), thereby minimizing inflammation (Lcr+). Rabbit antiserum raised against cloned **staphylococcal protein A-V antigen** fusion peptide (PAV) is known to passively immunize mice against 10 minimum lethal doses of intravenously injected Lcr+ cells of Y. **pestis**. In this study, injected PAV suppressed TNF-alpha and IFN-gamma in mice challenged with avirulent **V antigen**-deficient Y. **pestis** (**lcrV** or Lcr-) and promoted survival in vivo of these isolates as well as salmonellae and Listeria monocytogenes (with which the outcome was lethal). Active immunization of mice with PAV protected against 1,000 minimum lethal doses of intravenously injected Lcr+ cells of Y. **pestis** and Yersinia pseudotuberculosis but not Yersinia enterocolitica. The progressive necrosis provoked by Lcr+ cells of Y. **pestis** in visceral organs of nonimmunized mice was replaced after active immunization with PAV by massive infiltration of neutrophils and mononuclear cells (which generated protective granulomas indistinguishable from those formed against avirulent Lcr- mutants in nonimmunized mice). Distinct multiple abscesses typical of Lcr+ cells of Y. pseudotuberculosis were prevented by similar immunization. Significant synthesis of TNF-alpha and IFN-gamma occurred in spleens of mice actively immunized with PAV after challenge with Lcr+ cells of Y. **pestis**. These findings suggest that **V antigen** contributes to disease by suppressing the normal inflammatory response.

L6 ANSWER 27 OF 33 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 95012601 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7927675
TITLE: Passive immunity to yersiniae mediated by anti-recombinant **V antigen** and **protein A-V antigen** fusion peptide.
AUTHOR: Motin V L; Nakajima R; Smirnov G B; Brubaker R R
CORPORATE SOURCE: Department of Microbiology, Michigan State University, East Lansing 48824-1101.
CONTRACT NUMBER: AI 19353 (NIAID)
SOURCE: Infection and immunity, (1994 Oct) 62 (10) 4192-201.
Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199411
ENTRY DATE: Entered STN: 19941222
Last Updated on STN: 19941222
Entered Medline: 19941104

AB **LcrV** (**V antigen**), a known unstable

37.3-kDa monomeric peptide encoded on the ca. 70-kb Lcr plasmid of Yersinia **pestis**, Yersinia pseudotuberculosis, and Yersinia enterocolitica, has been implicated as a regulator of the low-calcium response, virulence factor, and protective antigen. In this study, **lcrV** of Y. **pestis** was cloned into protease-deficient Escherichia coli BL21. The resulting recombinant **V antigen** underwent marked degradation from the C-terminal end during purification, yielding major peptides of 36, 35, 34, and 32 to 29 kDa. Rabbit gamma globulin raised against this mixture of cleavage products provided significant protection against 10 minimum lethal doses of Y. **pestis** ($P < 0.01$) and Y. pseudotuberculosis ($P < 0.02$). To both stabilize **V antigen** and facilitate its purification, plasmid pPAV13 was constructed so as to encode a fusion of **lcrV** and the structural gene for **protein A** (i.e., all but the first 67 N-terminal amino acids of **V antigen** plus the signal sequence and immunoglobulin G-binding domains but not the cell wall-associated region of **protein A**). The resulting fusion peptide, termed PAV, could be purified to homogeneity in one step by immunoglobulin G affinity chromatography and was stable thereafter. Rabbit polyclonal gamma globulin directed against PAV provided excellent passive immunity against 10 minimum lethal doses of Y. **pestis** ($P < 0.005$) and Y. pseudotuberculosis ($P < 0.005$) but was ineffective against Y. enterocolitica. Protection failed after absorption with excess PAV, cloned whole **V antigen**, or a large (31.5-kDa) truncated derivative of the latter but was retained ($P < 0.005$) upon similar absorption with a smaller (19.3-kDa) truncated variant, indicating that at least one protective epitope resides internally between amino acids 168 and 275.

L6 ANSWER 28 OF 33 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 1994:330942 BIOSIS
DOCUMENT NUMBER: PREV199497343942
TITLE: Recombinant **V antigen** and **protein A-V antigen** fusion peptide mediated passive immunity to Yersiniae.
AUTHOR(S): Motin, V. L. [Reprint author]; Nakajima, R.; Smirnov, G. B.; Brubaker, R. R. [Reprint author]
CORPORATE SOURCE: Mich. State Univ., East Lansing, MI, USA
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (1994) Vol. 94, No. 0, pp. 155.
Meeting Info.: 94th General Meeting of the American Society for Microbiology. Las Vegas, Nevada, USA. May 23-27, 1994.
ISSN: 1060-2011.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 2 Aug 1994
Last Updated on STN: 2 Aug 1994

Sent Las Vegas

L6 ANSWER 29 OF 33 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on

STN
ACCESSION NUMBER: 1993:252227 BIOSIS
DOCUMENT NUMBER: PREV199395131402
TITLE: Variations of enzyme immunoassay of antibodies.
AUTHOR(S): Kulyash, G. Yu.; Lyapin, M. N.; Golovko, E. M.; Luchnikova, E. A.
CORPORATE SOURCE: All-Union Res. Antiplague Inst. "Microbe", Saratov, Russia
SOURCE: Klinicheskaya Laboratornaya Diagnostika, (1992) Vol. 0, No. 7-8, pp. 58-60.
ISSN: 0869-2084.
DOCUMENT TYPE: Article
LANGUAGE: Russian
ENTRY DATE: Entered STN: 21 May 1993
Last Updated on STN: 22 May 1993

AB The possibility of enzyme immunoassay of antibodies in a tested sample without using specific antispecies horseradish peroxidase-labeled IgG or **staphylococcal protein A** conjugated with horseradish peroxidase was demonstrated in experiments with Pasteurella **pestis** capsular antigen and different antibodies to it. The method is based on the use of protein A without enzymic label, that is fixed on Fc fragments of the initial antibodies specifically bound to antigen. At later stages of the experiment protein A can adsorb virtually any immunoglobulin conjugate with horseradish peroxidase that is available and can provide an enzymic reaction with the substrate.

L6 ANSWER 30 OF 33 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1989:224845 BIOSIS
DOCUMENT NUMBER: PREV198987116462; BA87:116462
TITLE: COAGGLUTINATING DIAGNOSTICUM FOR THE IDENTIFICATION OF FRANCISELLA-TULARENSIS.
AUTHOR(S): SIVKOVA O V [Reprint author]
CORPORATE SOURCE: ROSTOV RES ANTIPLAGUE INST, ROSTOV-NA-DONU, USSR
SOURCE: Laboratornoe Delo, (1988) No. 10, pp. 64-65.
CODEN: LABDAZ. ISSN: 0023-6748.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: RUSSIAN
ENTRY DATE: Entered STN: 7 May 1989
Last Updated on STN: 7 May 1989

AB The author recommends F. tularensis to be identified using the tularemia coagglutinating diagnostic agent prepared on the basis of the **protein A** containing dry **staphylococcal** reagent and tularemia rabbit serum. The agent is prepared in accordance with the instructions for the commercial reagent manufactured by the pasteur Research Institute of Epidemiology and Microbiology, Leningrad. The agent's sensitivity with the homologous strains is 108 bacterial cells per ml. Its high specificity has been proved in tests with heterologous bacteria (Brucella, Vibrio cholerae, Yersinia **pestis**, the Comomonas genus, Pseudomonas, and Enterobacteriaceae).

L6 ANSWER 31 OF 33 MEDLINE on STN DUPLICATE 8
ACCESSION NUMBER: 89115653 MEDLINE

DOCUMENT NUMBER: PubMed ID: 3064503
TITLE: [The results of using an immunoenzyme method in an epizootiologic survey of natural Siberian foci of plague].
Itogi primeneniia immunofermentnogo metoda pri epizootologicheskom obsledovanii sibirskikh prirodnykh ochagov chumy.
AUTHOR: Golubinskii E P; Rudnik M P; Innokent'eva T I; Lesnikov N T; Shmidt A A
SOURCE: Zhurnal mikrobiologii, epidemiologii, i immunobiologii, (1988 Oct) (10) 34-7.
Journal code: 0415217. ISSN: 0372-9311.
PUB. COUNTRY: USSR
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198903
ENTRY DATE: Entered STN: 19900308
Last Updated on STN: 19900308
Entered Medline: 19890302

AB The approbation of the enzyme immunoassay in the study of diverse field material (corpses of animals, ectoparasites, soil, feces of birds of prey, etc.) for the presence of Yersinia **pestis** contamination has shown the advantages of this assay over the existing serological tests: the passive hemagglutination test and the antigen (or antibody) neutralization test. The use of the immunoperoxidase preparation obtained on the basis of **staphylococcal protein A** makes it possible to detect antibodies to Y. **pestis** in animals of various species known to be the main carriers, as well as less important ones, in the natural foci of plague in Siberia. The enzyme immunoassay is recommended for use in the study of not only active natural foci, but also territories, dangerous with respect to plague, as well as for controlling the state of such territories after the realization of relevant sanitation measures.

L6 ANSWER 32 OF 33 MEDLINE on STN DUPLICATE 9
ACCESSION NUMBER: 88072893 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3318229
TITLE: [Serological reaction systems using enzyme-labelled immunospecific reagents].
Sistemy serologicheskikh reaktsii s ispol'zovaniem immunospetsificheskikh reagentov, mechennykh fermentom.
AUTHOR: Vengerov Iu Iu; Levi M I; Volkov D V; Sveshnikov P G; Severin E S
SOURCE: Zhurnal mikrobiologii, epidemiologii, i immunobiologii, (1987 Aug) (8) 56-61.
Journal code: 0415217. ISSN: 0372-9311.
PUB. COUNTRY: USSR
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198801
ENTRY DATE: Entered STN: 19900305
Last Updated on STN: 19980206

Searcher : Shears 571-272-2528

Entered Medline: 19880111

AB Different serological test systems, based on the use of enzyme-labeled immunospecific reagents and intended for testing the material under study for the presence of Yersinia **pestis** capsular antigen and antibodies to it, are described. Comparative data on the evaluation of their sensitivity to the antigen and antibodies to it in different schemes of enzyme immunoassays (EIA) are presented. As shown in this investigation, EIA systems for the detection of the antigen and antibodies to it can comprise, at the minimum, the following set of reagents: monoclonal antibodies to the capsular antigen, **staphylococcal protein A**, and the conjugates of the capsular antigen and monoclonal antibodies with horse-radish peroxidase. The authors have come to the conclusion that the use of the serological test systems can essentially increase the reliability of the assay of any individual sample by EIA techniques.

L6 ANSWER 33 OF 33 MEDLINE on STN
ACCESSION NUMBER: 82007845 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7275993
TITLE: Antibody response to plague vaccination in humans as assayed by staphylococcal radioimmune precipitation (St-RIP) test.
AUTHOR: Schaffer F L; Soergel M E; Williams J E
SOURCE: Journal of biological standardization, (1981) 9 (3) 265-76.
Journal code: 0400335. ISSN: 0092-1157.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198111
ENTRY DATE: Entered STN: 19900316
Last Updated on STN: 19900316
Entered Medline: 19811118

(FILE 'USPATFULL' ENTERED AT 10:19:43 ON 21 APR 2004)
L12 9 SEA FILE=USPATFULL ABB=ON PLU=ON (STAPHYLOCOCC?(10A)(PROTEIN A OR SPA))(S)PESTIS

L13 40 SEA FILE=USPATFULL ABB=ON PLU=ON "PROTEIN A"(S)PESTIS
L14 18 SEA FILE=USPATFULL ABB=ON PLU=ON L13(S)((V OR H)(5A)((CA OR CALCIUM)(W)RESPONSE OR ANTIGEN) OR LCRV OR LCR V)

L15 21 L12 OR L14

L15 ANSWER 1 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2004:78909 USPATFULL
TITLE: Non-stochastic generation of genetic vaccines and enzymes
INVENTOR(S): Short, Jay M., Rancho Santa Fe, CA, United States
PATENT ASSIGNEE(S): Diversa Corporation, San Diego, CA, United States (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION:	US 6713279	B1	20040330
APPLICATION INFO.:	US 2000-498557		20000204 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-495052, filed on 31 Jan 2000, now patented, Pat. No. US 6479253 Continuation-in-part of Ser. No. US 1999-332835, filed on 14 Jun 1999, now patented, Pat. No. US 6537776 Continuation-in-part of Ser. No. US 1999-276860, filed on 26 Mar 1999, now patented, Pat. No. US 6352842 Continuation-in-part of Ser. No. US 1999-267118, filed on 9 Mar 1999, now patented, Pat. No. US 6238884 Continuation-in-part of Ser. No. US 1999-246178, filed on 4 Feb 1999, now patented, Pat. No. US 6171820 Continuation-in-part of Ser. No. US 1998-185373, filed on 3 Nov 1998, now patented, Pat. No. US 6335179 Continuation of Ser. No. US 1996-760489, filed on 5 Dec 1996, now patented, Pat. No. US 5830696 Continuation-in-part of Ser. No. US 1997-962504, filed on 31 Oct 1997 Continuation-in-part of Ser. No. US 1996-677112, filed on 9 Jul 1996, now patented, Pat. No. US 5965408 Continuation-in-part of Ser. No. US 1996-651568, filed on 22 May 1996, now patented, Pat. No. US 5939250		

PRIORITY INFORMATION:	NUMBER	DATE
	US 1995-8311P	19951207 (60)
	US 1995-8316P	19951207 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Park, Hankyel T.
LEGAL REPRESENTATIVE:	Love, Jane M., Butler, James E.
NUMBER OF CLAIMS:	105
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	73 Drawing Figure(s); 64 Drawing Page(s)
LINE COUNT:	19098

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides methods of obtaining novel polynucleotides and encoded polypeptides by use of non-stochastic methods of directed evolution (DirectEvolution.TM.). These methods include non-stochastic polynucleotide site-saturation mutagenesis (Gene Site Saturation Mutagenesis.TM.) and non-stochastic polynucleotide reassembly (GeneReassembly.TM.). Through use of the claimed methods, genetic vaccines, enzymes, and other desirable molecules can be evolved towards desirable properties. For example, vaccine vectors can be obtained that exhibit increased efficacy for use as genetic vaccines. Vectors obtained by using the methods can have, for example, enhanced antigen expression, increased uptake into a cell, increased stability in a cell, ability to tailor an immune response, and the like. This invention provides methods of obtaining novel enzymes that have optimized physical &/or biological properties. Furthermore, this invention provides methods of obtaining a variety of novel biologically active

molecules, in the fields of antibiotics, pharmacotherapeutics, and transgenic traits.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/069.100
INCLS: 435/006.000; 435/334.000; 435/320.100
NCL NCLM: 435/069.100
NCLS: 435/006.000; 435/334.000; 435/320.100

L15 ANSWER 2 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2004:69593 USPATFULL
TITLE: Fusion proteins comprising DP-178 and other viral fusion inhibitor peptides useful for treating aids
INVENTOR(S): Bolognesi, Dani Paul, Durham, NC, UNITED STATES
Matthews, Thomas James, Durham, NC, UNITED STATES
Wild, Carl T., Durham, NC, UNITED STATES
Barney, Shawn O?apos,Lin, Cary, NC, UNITED STATES
Lambert, Dennis Michael, Cary, NC, UNITED STATES
Petteway, Stephen Robert, Cary, NC, UNITED STATES
Langlois, Alphonse J., Durham, NC, UNITED STATES
PATENT ASSIGNEE(S): Duke University (U.S. corporation)
Trimeris, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004052820	A1	20040318
APPLICATION INFO.:	US 2002-267748	A1	20021008 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1995-484223, filed on 7 Jun 1995, PENDING Division of Ser. No. US 1995-470896, filed on 6 Jun 1995, GRANTED, Pat. No. US 6479055 Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, GRANTED, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994, GRANTED, Pat. No. US 6440656 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, GRANTED, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PENNIE AND EDMONDS, 1155 AVENUE OF THE AMERICAS, NEW YORK, NY, 100362711
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 83 Drawing Page(s)
LINE COUNT: 40442
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to peptides which exhibit potent anti-retroviral activity. The peptides of the invention comprise DP178 (SEQ ID:1) peptide corresponding to amino acids 638 to 673 of the HIV-1.sub.LAI gp41 protein, and fragments, analogs and homologs of DP178. The invention further relates to the uses of such peptides as inhibitory of human and non-human retroviral, especially HIV, transmission to uninfected cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 424/208.100
INCLS: 424/188.100; 530/350.000; 424/204.100; 530/300.000
NCL NCLM: 424/208.100
NCLS: 424/188.100; 530/350.000; 424/204.100; 530/300.000

L15 ANSWER 3 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2004:44245 USPATFULL
TITLE: Nucleic acids encoding DP-178 and other viral fusion inhibitor peptides useful for treating aids
INVENTOR(S): Bolognesi, Dani Paul, Durham, NC, UNITED STATES
Matthews, Thomas James, Durham, NC, UNITED STATES
Wild, Carl T., Durham, NC, UNITED STATES
PATENT ASSIGNEE(S): Duke University (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004033235	A1	20040219
APPLICATION INFO.:	US 2003-267682	A1	20030106 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1995-484223, filed on 7 Jun 1995, PENDING Division of Ser. No. US 1995-470896, filed on 6 Jun 1995, GRANTED, Pat. No. US 6479055 Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, GRANTED, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994, GRANTED, Pat. No. US 6440656 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, GRANTED, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PENNIE AND EDMONDS, 1155 AVENUE OF THE AMERICAS, NEW YORK, NY, 100362711
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 63 Drawing Page(s)
LINE COUNT: 59510
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to peptides which exhibit potent anti-retroviral activity. The peptides of the invention comprise DP178 (SEQ ID:1) peptide corresponding to amino acids 638 to 673 of the HIV-1.sub.LAI gp41 protein, and fragments, analogs and homologs of DP178. The invention further relates to the uses of such peptides as inhibitory of human and non-human retroviral, especially HIV, transmission to uninfected cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/186.100
INCLS: 424/188.100; 530/350.000; 424/208.100; 424/187.100
NCL NCLM: 424/186.100
NCLS: 424/188.100; 530/350.000; 424/208.100; 424/187.100

L15 ANSWER 4 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2004:1830 USPATFULL
TITLE: Antigen library immunization
INVENTOR(S): Punnonen, Juha, Belmont, CA, UNITED STATES

Bass, Steven H., Hillsborough, CA, UNITED STATES
Whalen, Robert Gerald, Foster City, CA, UNITED STATES
Howard, Russell, Los Altos Hills, CA, UNITED STATES
Stemmer, Willem P.C., Los Gatos, CA, UNITED STATES
PATENT ASSIGNEE(S): Maxygen, Inc., a Delaware corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004001849	A1	20040101
APPLICATION INFO.:	US 2003-383317	A1	20030307 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-724852, filed on 28 Nov 2000, GRANTED, Pat. No. US 6576757
Continuation of Ser. No. US 1999-247890, filed on 10 Feb 1999, GRANTED, Pat. No. US 6541011

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-105509P	19981023 (60)
	US 1998-74294P	19980211 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MAXYGEN, INC., INTELLECTUAL PROPERTY DEPARTMENT, 515 GALVESTON DRIVE, RED WOOD CITY, CA, 94063
NUMBER OF CLAIMS: 53
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 21 Drawing Page(s)
LINE COUNT: 5367
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention is directed to antigen library immunization, which provides methods for obtaining antigens having improved properties for therapeutic and other uses. The methods are useful for obtaining improved antigens that can induce an immune response against pathogens, cancer, and other conditions, as well as antigens that are effective in modulating allergy, inflammatory and autoimmune diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/186.100
INCLS: 424/188.100; 424/189.100; 424/190.100; 530/350.000
NCL NCLM: 424/186.100
NCLS: 424/188.100; 424/189.100; 424/190.100; 530/350.000

L15 ANSWER 5 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2003:330129 USPATFULL
TITLE: Nanoporous particle with a retained target
INVENTOR(S): Anderson, David, Colonial Heights, VA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003232340	A1	20031218
APPLICATION INFO.:	US 2002-170214	A1	20020613 (10)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: WHITHAM, CURTIS & CHRISTOFFERSON, P.C., 11491 SUNSET HILLS ROAD, SUITE 340, RESTON, VA, 20190
NUMBER OF CLAIMS: 119
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 2555
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Porous nanostructured materials, such as porous nanostructured liquid and liquid crystalline particles or materials, incorporate a target substantially within the material which selectively binds a chemical of interest which can diffusion within the porous nanostructured material and be bound by the target. The porous nanostructured materials can be dispersed as particles in a medium in which said chemical of interest is located with low turbidity. Markers which detect binding of said chemical of interest can be maintained in the medium separate and apart from the target, and any active compound (e.g., an enzyme) associated therewith by the porous nanostructured material, such that detectable changes in the marker only result when the active compounds diffuse out of the porous nanostructured materials after the chemical of interest binds to the target.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/006.000
INCLS: 435/007.100; 435/287.200
NCL NCLM: 435/006.000
NCLS: 435/007.100; 435/287.200

L15 ANSWER 6 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2003:312155 USPATFULL
TITLE: Novel antigen binding molecules for therapeutic, diagnostic, prophylactic, enzymatic, industrial, and agricultural applications, and methods for generating and screening thereof
INVENTOR(S): Short, Jay M., Rancho Santa Fe, CA, UNITED STATES
PATENT ASSIGNEE(S): Diversa Corporation, San Diego, CA, UNITED STATES, 92121 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003219752	A1	20031127
APPLICATION INFO.:	US 2002-151469	A1	20020517 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-535754, filed on 27 Mar 2000, GRANTED, Pat. No. US 6361974 Continuation-in-part of Ser. No. US 2000-522289, filed on 9 Mar 2000, GRANTED, Pat. No. US 6358709 Continuation-in-part of Ser. No. US 2000-498557, filed on 4 Feb 2000, ABANDONED Continuation-in-part of Ser. No. US 2000-495052, filed on 31 Jan 2000, GRANTED, Pat. No. US 6479258 Continuation-in-part of Ser. No. US 1999-276860, filed on 26 Mar 1999, GRANTED, Pat. No. US 6352842 Continuation-in-part of Ser. No. US 1999-267118, filed on 9 Mar 1999, GRANTED,

Pat. No. US 6238884 Continuation-in-part of Ser. No. US 1999-246178, filed on 4 Feb 1999, GRANTED, Pat. No. US 6171820 Continuation of Ser. No. US 1998-185373, filed on 3 Nov 1998, GRANTED, Pat. No. US 6335179 Continuation of Ser. No. US 1996-760489, filed on 5 Dec 1996, GRANTED, Pat. No. US 5830696 Continuation-in-part of Ser. No. US 1996-677112, filed on 9 Jul 1996, GRANTED, Pat. No. US 5965408 Continuation-in-part of Ser. No. WO 2000-US16838, filed on 14 Jun 2000, PENDING Continuation-in-part of Ser. No. WO 2000-US8245, filed on 27 Mar 2000, PENDING Continuation-in-part of Ser. No. WO 2000-US6497, filed on 9 Mar 2000, PENDING Continuation-in-part of Ser. No. US 2000-594459, filed on 14 Jun 2000, PENDING Continuation-in-part of Ser. No. US 1999-332835, filed on 14 Jun 1999, GRANTED, Pat. No. US 6537776 Continuation-in-part of Ser. No. WO 2000-US3086, filed on 4 Feb 2000, PENDING Continuation-in-part of Ser. No. US 2001-756459, filed on 8 Jan 2001, PENDING Continuation of Ser. No. US 1999-246178, filed on 4 Feb 1999, GRANTED, Pat. No. US 6171820 Continuation of Ser. No. US 1998-185373, filed on 3 Nov 1998, GRANTED, Pat. No. US 6335179 Continuation-in-part of Ser. No. US 1996-760489, filed on 5 Dec 1996, GRANTED, Pat. No. US 5830696 Continuation-in-part of Ser. No. US 1999-376727, filed on 17 Aug 1999, GRANTED, Pat. No. US 6440668 Continuation of Ser. No. US 1996-677112, filed on 9 Jul 1996, GRANTED, Pat. No. US 5965408 Continuation-in-part of Ser. No. WO 1998-US22596, filed on 23 Oct 1998, PENDING Continuation-in-part of Ser. No. US 1999-214645, filed on 27 Sep 1999, PENDING A 371 of International Ser. No. WO 1997-US12239, filed on 9 Jul 1997, PENDING Continuation-in-part of Ser. No. US 2001-790321, filed on 21 Feb 2001, PENDING Division of Ser. No. US 2000-687219, filed on 12 Oct 2000, PENDING Continuation-in-part of Ser. No. US 2000-636778, filed on 11 Aug 2000, PENDING Continuation of Ser. No. US 1998-98206, filed on 16 Jun 1998, GRANTED, Pat. No. US 6174673 Continuation-in-part of Ser. No. US 2001-876276, filed on 7 Jun 2001, GRANTED, Pat. No. US 6468724 Continuation-in-part of Ser. No. US 2001-761559, filed on 16 Jan 2001, PENDING Division of Ser. No. US 1998-98206, filed on 16 Jun 1998, GRANTED, Pat. No. US 6174673 Continuation-in-part of Ser. No. US 1997-876276, filed on 16 Jun 1997, PENDING Continuation-in-part of Ser. No. US 2001-848185, filed on 3 May 2001, PENDING Division of Ser. No. US 2000-636778, filed on 11 Aug 2000, PENDING Continuation of Ser. No. US 1998-98206, filed on 16 Jun 1998, GRANTED, Pat. No. US 6174673 Continuation-in-part of Ser. No. US 1997-876276,

filed on 16 Jun 1997, PENDING
Continuation-in-part of Ser. No. US 2000-738871, filed on 15 Dec 2000, PENDING
Continuation-in-part of Ser. No. US 2000-685432, filed on 10 Oct 2000, PENDING
Continuation-in-part of Ser. No. US 1999-444112, filed on 22 Nov 1999, PENDING
Continuation-in-part of Ser. No. US 1998-98206, filed on 16 Jun 1998, GRANTED, Pat. No. US 6174673 Continuation-in-part of Ser. No. US 1997-876276, filed on 16 Jun 1997, PENDING
Continuation-in-part of Ser. No. WO 2000-US32208, filed on 22 Nov 2000, PENDING
Continuation-in-part of Ser. No. WO 1998-US12674, filed on 16 Jun 1998, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-300381P	20010517 (60)
	US 2001-300907P	20010625 (60)
	US 1995-8311P	19951207 (60)
	US 1995-8316P	19951207 (60)
	US 1995-8311P	19951207 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FISH & RICHARDSON, PC, 4350 LA JOLLA VILLAGE DRIVE, SUITE 500, SAN DIEGO, CA, 92122
NUMBER OF CLAIMS: 102
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 95 Drawing Page(s)
LINE COUNT: 23775
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention is directed to methods for generating sets, or libraries, of nucleic acids encoding antigen-binding sites, such as antibodies, antibody domains or other fragments, including single and double stranded antibodies, major histocompatibility complex (MHC) molecules, T cell receptors (TCRs), and the like. This invention provides methods for generating variant antigen binding sites, e.g., antibodies and specific domains or fragments of antibodies (e.g., Fab or Fc domains), by altering template nucleic acids including by saturation mutagenesis, synthetic ligation reassembly, or a combination thereof. In one aspect, invention provides methods for generating all human or humanized antibodies and evolving them to achieve optimized properties related to stability, duration, expression, production, enzymatic activity, affinity, avidity, localization, and other immunological properties. Polypeptides generated by these methods can be analyzed using a novel capillary array platform, which provides unprecedented ultra-high throughput screening.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/006.000
INCLS: 435/069.100; 435/007.100; 435/320.100; 435/325.000; 435/326.000; 530/387.100; 536/023.100
NCL NCLM: 435/006.000
NCLS: 435/069.100; 435/007.100; 435/320.100; 435/325.000;

435/326.000; 530/387.100; 536/023.100

L15 ANSWER 7 OF 21 USPATFULL on STN

ACCESSION NUMBER:	2003:294272 USPATFULL
TITLE:	Non-stochastic generation of genetic vaccines
INVENTOR(S):	Short, Jay M., Rancho Santa Fe, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003207287	A1	20031106
APPLICATION INFO.:	US 2002-223507	A1	20020819 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-495052, filed on 31 Jan 2000, GRANTED, Pat. No. US 6479258 Continuation-in-part of Ser. No. US 1999-276860, filed on 26 Mar 1999, GRANTED, Pat. No. US 6352842 Continuation-in-part of Ser. No. US 1999-267118, filed on 9 Mar 1999, GRANTED, Pat. No. US 6238884 Continuation-in-part of Ser. No. US 1999-246178, filed on 4 Feb 1999, GRANTED, Pat. No. US 6171820 Continuation-in-part of Ser. No. US 1998-185373, filed on 3 Nov 1998, GRANTED, Pat. No. US 6335179 Continuation of Ser. No. US 1996-760489, filed on 5 Dec 1996, GRANTED, Pat. No. US 5830696 Continuation-in-part of Ser. No. US 1996-677112, filed on 9 Jul 1996, GRANTED, Pat. No. US 5965408

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-8311P	19951207 (60)
	US 1995-8316P	19951207 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	HALE AND DORR LLP, 300 PARK AVENUE, NEW YORK, NY, 10022
NUMBER OF CLAIMS:	69
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	61 Drawing Page(s)
LINE COUNT:	20997

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides methods of obtaining vaccines by use of non-stochastic methods of directed evolution (DirectEvolution.TM.). These methods include non-stochastic polynucleotide site-saturation mutagenesis (Gene Site Saturation Mutagenesis.TM.) and non-stochastic polynucleotide reassembly (GeneReassembly.TM.). Through use of the claimed methods, vectors can be obtained which exhibit increased efficacy for use as genetic vaccines. Vectors obtained by using the methods can have, for example, enhanced antigen expression, increased uptake into a cell, increased stability in a cell, ability to tailor an immune response, and the like.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 435/006.000
INCLS: 435/069.100; 435/320.100; 435/325.000; 514/044.000; 800/288.000

NCL NCLM: 435/006.000
NCLS: 435/069.100; 435/320.100; 435/325.000; 514/044.000; 800/288.000

L15 ANSWER 8 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2003:285087 USPATFULL
TITLE: Recombinant plasmid and a method of controlling the effects of Yersinia pestis
INVENTOR(S): Brubaker, Robert R., Vermontville, MI, United States
Motin, Vladimir L., E. Lansing, MI, United States
Smirnov, George B., Moscow, RUSSIAN FEDERATION
PATENT ASSIGNEE(S): Board of Trustees of Michigan State University, East Lansing, MI, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6638510	B1	20031028	
APPLICATION INFO.:	US 1994-302423		19940908	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Smith, Lynette R. F.
LEGAL REPRESENTATIVE: McLeod, Ian C.
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 7 Drawing Page(s)
LINE COUNT: 927
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Described is a plasmid prepared by recombinant techniques which is used to prepare a vaccine against Y. pestis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/184.100
INCLS: 424/234.100; 530/350.000
NCL NCLM: 424/184.100
NCLS: 424/234.100; 530/350.000

L15 ANSWER 9 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2003:159130 USPATFULL
TITLE: Coated particles, methods of making and using
INVENTOR(S): Anderson, David M., Colonial Heights, VA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003108743	A1	20030612	
	US 6638621	B2	20031028	
APPLICATION INFO.:	US 2002-170237	A1	20020613	(10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-297997, filed on 16 Aug 2000, GRANTED, Pat. No. US 6482517
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: WHITHAM, CURTIS & CHRISTOFFERSON, P.C., 11491 SUNSET HILLS ROAD, SUITE 340, RESTON, VA, 20190

NUMBER OF CLAIMS: 107
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 11 Drawing Page(s)
LINE COUNT: 5538
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A particle coated with a nonlamellar material such as a nonlamellar crystalline material, a nonlamellar amorphous material, or a nonlamellar semi-crystalline material includes an internal matrix core having at least one a nanostructured liquid phase, or at least on nanostructured liquid crystalline phase or a combination of the two is used for the delivery of active agents such as pharmaceuticals, nutrients, pesticides, etc. The coated particle can be fabricated by a variety of different techniques where the exterior coating is a nonlamellar material such as a nonlamellar crystalline material, a nonlamellar amorphous material, or a nonlamellar semi-crystalline material

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 428/402.240
NCL NCLM: 428/402.240
NCLS: 424/422.000; 424/426.000; 424/450.000; 435/176.000

L15 ANSWER 10 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2003:155723 USPATFULL
TITLE: Polynucleotides encoding flavivirus and alphavirus multivalent antigenic polypeptides
INVENTOR(S): Punnonen, Juha, Palo Alto, CA, United States
Bass, Steven H., Hillsborough, CA, United States
Whalen, Robert Gerald, Paris, FRANCE
Howard, Russell, Los Altos Hills, CA, United States
Stemmer, Willem P. C., Los Gatos, CA, United States
PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6576757	B1	20030610
APPLICATION INFO.:	US 2000-724852		20001128 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-247890, filed on 10 Feb 1999

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-105509P	19981023 (60)
	US 1998-74294P	19980211 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Park, Hankyel T.
ASSISTANT EXAMINER: Brown, Stacy S.
LEGAL REPRESENTATIVE: Powers, Margaret A., Kruse, Norman J., Quine Intellectual Property Law Group, P.C.
NUMBER OF CLAIMS: 54
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 27 Drawing Figure(s); 23 Drawing Page(s)

LINE COUNT: 6384
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention is directed to antigen library immunization, which provides methods for obtaining antigens having improved properties for therapeutic and other uses. The methods are useful for obtaining improved antigens that can induce an immune response against pathogens, cancer, and other conditions, as well as antigens that are effective in modulating allergy, inflammatory and autoimmune diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 536/023.720
INCLS: 536/023.100; 514/044.000; 424/184.100; 424/204.100; 424/218.100; 424/228.100
NCL NCLM: 536/023.720
NCLS: 424/184.100; 424/204.100; 424/218.100; 424/228.100; 536/023.100

L15 ANSWER 11 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2003:142838 USPATFULL
TITLE: Flavivirus and alphavirus recombinant antigen libraries
INVENTOR(S): Punnonen, Juha, Palo Alto, CA, United States
Bass, Steven H., Hillsborough, CA, United States
Whalen, Robert Gerald, Paris, FRANCE
Howard, Russell, Los Altos Hills, CA, United States
Stemmer, Willem P. C., Los Gatos, CA, United States
PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6569435	B1	20030527
APPLICATION INFO.:	US 2000-724969		20001128 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-247890, filed on 10 Feb 1999

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-105509P	19981023 (60)
	US 1998-74294P	19980211 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Park, Hankyel T.
ASSISTANT EXAMINER: Brown, Stacy S.
LEGAL REPRESENTATIVE: Powers, Margaret A., Kruse, Norman J., Quine Intellectual Property Law Group, P.C.
NUMBER OF CLAIMS: 51
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 27 Drawing Figure(s); 23 Drawing Page(s)
LINE COUNT: 6559
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention is directed to antigen library immunization, which provides methods for obtaining antigens having improved properties

for therapeutic and other uses. The methods are useful for obtaining improved antigens that can induce an immune response against pathogens, cancer, and other conditions, as well as antigens that are effective in modulating allergy, inflammatory and autoimmune diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/202.100
INCLS: 424/204.100; 424/236.100; 424/234.100; 424/274.100; 435/006.000; 435/320.100; 514/044.000
NCL NCLM: 424/202.100
NCLS: 424/204.100; 424/234.100; 424/236.100; 424/274.100; 435/006.000; 435/320.100; 514/044.000

L15 ANSWER 12 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2003:51224 USPATFULL
TITLE: Peptide extended glycosylated polypeptides
INVENTOR(S): Okkels, Jens Sigurd, Vedbaek, DENMARK
Jensen, Anne Dam, Copenhagen, DENMARK
van den Hazel, Bart, Copenhagen, DENMARK

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003036181	A1	20030220	
APPLICATION INFO.:	US 2001-896896	A1	20010629	(9)

	NUMBER	DATE	
PRIORITY INFORMATION:	DK 2000-1027	20000630	
	DK 2000-1092	20000714	
	WO 2000-DK743	20001229	
	WO 2001-DK90	20010209	
	US 2000-217497P	20000711	(60)
	US 2000-225558P	20000816	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MAXYGEN, INC., 515 GALVESTON DRIVE, RED WOOD CITY, CA, 94063
NUMBER OF CLAIMS: 57
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 4732
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Glycosylated polypeptides comprising the primary structure NH.sub.2--X--Pp--COOH, wherein X is a peptide addition comprising or contributing to a glycosylation site, and Pp is a polypeptide of interest or comprising the primary structure NH.sub.2-P.sub.x--X--P.sub.y-COOH, wherein P.sub.x is an N-terminal part of a polypeptide Pp of interest, P.sub.y is a C-terminal part of said polypeptide Pp, and X is a peptide addition comprising or contributing to a glycosylation site are provided. The glycosylated polypeptides possess improved properties as compared to the polypeptide of interest.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/184.000

INCLS: 435/183.000; 530/322.000; 530/388.100; 530/351.000; 530/350.000; 530/397.000
NCL NCLM: 435/184.000
NCLS: 435/183.000; 530/322.000; 530/388.100; 530/351.000; 530/350.000; 530/397.000

L15 ANSWER 13 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2003:40533 USPATFULL
TITLE: Methods for the inhibition of epstein-barr virus transmission employing anti-viral peptides capable of abrogating viral fusion and transmission
INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6518013	B1	20030211
APPLICATION INFO.:	US 1995-485546		19950607 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, now patented, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Scheiner, Laurie
ASSISTANT EXAMINER: Parkin, Jeffrey S.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP, Nelson, M. Bud
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 84 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 24700
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Fusion of the viral envelope, or infected cell membranes with uninfected cell membranes, is an essential step in the viral life cycle. Recent studies involving the human immunodeficiency virus type 1(HIV-1) demonstrated that synthetic peptides (designated DP-107 and DP-178) derived from potential helical regions of the transmembrane (TM) protein, gp41, were potent inhibitors of viral fusion and infection. A computerized antiviral searching technology (C.A.S.T.) that detects related structural motifs (e.g., ALLMOTI 5, 107+178+4, and PLZIP) in other viral proteins was employed to identify similar regions in the Epstein-Barr virus (EBV). Several conserved heptad repeat domains that are predicted to form coiled-coil structures with antiviral activity were identified in the EBV genome. Synthetic peptides of 16 to 39 amino acids derived from these regions were prepared and their antiviral activities assessed in a suitable in vitro screening assay. These peptides proved to be potent inhibitors of EBV fusion. Based upon their structural and functional equivalence

to the known HIV-1 inhibitors DP-107 and DP-178, these peptides should provide a novel approach to the development of targeted therapies for the treatment of EBV infections.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/005.000
INCLS: 424/230.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000
NCL NCLM: 435/005.000
NCLS: 424/230.100; 530/300.000; 530/324.000; 530/325.000; 530/326.000

L15 ANSWER 14 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2003:30295 USPATFULL
TITLE: Particles with improved solubilization capacity
INVENTOR(S): Anderson, David, Colonial Heights, VA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003022242	A1	20030130
APPLICATION INFO.:	US 2002-176112	A1	20020621 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-300476P	20010623 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: WHITHAM, CURTIS & CHRISTOFFERSON, P.C., 11491 SUNSET HILLS ROAD, SUITE 340, RESTON, VA, 20190
NUMBER OF CLAIMS: 204
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Page(s)
LINE COUNT: 3885
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A particle is disclosed that comprises a first volume of hydrophobe-rich material with tunable dissolution and solubilization characteristics and a distinct second volume of nanostructured nonlamellar liquid crystalline material, said second volume containing said first domain and being capable of being in equilibrium with said first volume. Preferably, the nanostructured nonlamellar liquid crystalline material is capable of being in equilibrium with a polar solvent or a water-immiscible solvent or both.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/007.100
INCLS: 424/490.000
NCL NCLM: 435/007.100
NCLS: 424/490.000

L15 ANSWER 15 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2003:23655 USPATFULL
TITLE: Enterococcus faecalis polynucleotides and polypeptides
INVENTOR(S): Choi, Gil H., Rockville, MD, UNITED STATES

	Bailey, Camella, Washington, DC, UNITED STATES Hromockyj, Alex, Mountainview, CA, UNITED STATES Kunsch, Charles A., Norcross, GA, UNITED STATES
PATENT ASSIGNEE(S):	Human Genome Sciences, Inc., Rockville, MD, 20850 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003017495	A1	20030123
APPLICATION INFO.:	US 2002-206576	A1	20020729 (10)

RELATED APPLN. INFO.: Division of Ser. No. US 1998-71035, filed on 4 May 1998, GRANTED, Pat. No. US 6448043

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-66009P	19971114 (60)
	US 1997-46655P	19970516 (60)
	US 1997-44031P	19970506 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
LINE COUNT: 4765
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to novel genes from E. faecalis and the polypeptides they encode. Also provided as are vectors, host cells, antibodies and methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of E. faecalis polypeptide activity. The invention additionally relates to diagnostic methods for detecting Enterococcus nucleic acids, polypeptides and antibodies in a biological sample. The present invention further relates to novel vaccines for the prevention or attenuation of infection by Enterococcus.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/006.000
INCLS: 435/069.300; 435/183.000; 435/252.300; 435/320.100; 536/023.700
NCL NCLM: 435/006.000
NCLS: 435/069.300; 435/183.000; 435/252.300; 435/320.100; 536/023.700

L15 ANSWER 16 OF 21 USPATFULL on STN

ACCESSION NUMBER:	2002:344432 USPATFULL
TITLE:	ANTIGEN LIBRARY IMMUNIZATION
INVENTOR(S):	PUNNONEN, JUHA, PALO ALTO, CA, UNITED STATES BASS, STEVEN H., HILLSBOROUGH, CA, UNITED STATES WHALEN, ROBERT GERALD, PARIS, FRANCE HOWARD, RUSSELL, LOS ALTOS HILLS, CA, UNITED STATES STEMMER, WILLEM P. C., LOS GATOS, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002198162	A1	20021226
	US 6541011	B2	20030401
APPLICATION INFO.:	US 1999-247890	A1	19990210 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-74294P	19980211 (60)
	US 1998-105509P	19981023 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MAXYGEN, INC., 515 GALVESTON DRIVE, RED WOOD CITY, CA, 94063
NUMBER OF CLAIMS: 53
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 21 Drawing Page(s)
LINE COUNT: 5366
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention is directed to antigen library immunization, which provides methods for obtaining antigens having improved properties for therapeutic and other uses. The methods are useful for obtaining improved antigens that can induce an immune response against pathogens, cancer, and other conditions, as well as antigens that are effective in modulating allergy, inflammatory and autoimmune diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 514/044.000
NCL NCLM: 424/204.100
NCLS: 424/218.100; 530/300.000; 530/350.000

L15 ANSWER 17 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2002:297432 USPATFULL
TITLE: Non-stochastic generation of genetic vaccines
INVENTOR(S): Short, Jay M., Rancho Santa Fe, CA, United States
PATENT ASSIGNEE(S): Diversa Corporation, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6479258	B1	20021112
APPLICATION INFO.:	US 2000-495052		20000131 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-276860, filed on 26 Mar 1999 Continuation-in-part of Ser. No. US 1999-246178, filed on 4 Feb 1999, now patented, Pat. No. US 6171820 Continuation-in-part of Ser. No. US 1998-185373, filed on 3 Nov 1998 Continuation-in-part of Ser. No. US 1996-760489, filed on 5 Dec 1996, now patented, Pat. No. US 5830696

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-8311P	19951207 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Park, Hankyel T.
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.
NUMBER OF CLAIMS: 86
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 66 Drawing Figure(s); 61 Drawing Page(s)
LINE COUNT: 19213
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides methods of obtaining vaccines by use of non-stochastic methods of directed evolution (DirectEvolution.TM.). These methods include non-stochastic polynucleotide site-satuaration mutagenesis (Gene Site Saturation Mutagenesis.TM.) and non-stochastic polynucleotide reassembly (GeneReassembly.TM.). Through use of the claimed methods, vectors can be obtained which exhibit increased efficacy for use as genetic vaccines. Vectors obtained by using the methods can have, for example, enhanced antigen expression, increased uptake into a cell, increased stability in a cell, ability to tailor an immune response, and the like.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/069.100
INCLS: 530/350.000; 536/023.200
NCL NCLM: 435/069.100
NCLS: 530/350.000; 536/023.200

L15 ANSWER 18 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2002:297296 USPATFULL
TITLE: Methods for inhibition of membrane fusion-associated events, including respiratory syncytial virus transmission
INVENTOR(S): Bolognesi, Dani Paul, Durham, NC, United States
Matthews, Thomas James, Durham, NC, United States
Wild, Carl T., Durham, NC, United States
Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
Langlois, Alphonse J., Durham, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6479055	B1	20021112
APPLICATION INFO.:	US 1995-470896		19950606 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994, now patented, Pat. No. US 6017536 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Stucker, Jeffrey
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP

NUMBER OF CLAIMS: 44
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 84 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 26553
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to peptides which exhibit potent anti-viral activity. In particular, the invention relates to methods of using such peptides as inhibitory of respiratory syncytial virus ("RSV") transmission to uninfected cells. The peptides used in the methods of the invention are homologs of the DP-178 and DP-107 peptides, peptides corresponding to amino acid residues 638 to 673, and to amino acid residues 558 to 595, respectively, of the HIV-1.sub.LAI transmembrane protein (TM) gp41.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 424/211.100
INCLS: 424/186.100; 530/324.000
NCL NCLM: 424/211.100
NCLS: 424/186.100; 530/324.000

L15 ANSWER 19 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2002:85691 USPATFULL
TITLE: ENTEROCOCCUS FAECALIS POLYNUCLEOTIDES AND POLYPEPTIDES
INVENTOR(S): CHOI, GIL H., ROCKVILLE, MD, UNITED STATES
BAILEY, CAMELLA, TAKOMA PARK, MD, UNITED STATES
HROMOCKYJ, ALEX, N. POTOMAC, MD, UNITED STATES
KUNSCH, CHARLES A., NORCROSS, GA, UNITED STATES
PATENT ASSIGNEE(S): HUMAN GENOME SCIENCES, INC. (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002045737	A1	20020418	
	US 6448043	B2	20020910	
APPLICATION INFO.:	US 1998-71035	A1	19980504	(9)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
LINE COUNT: 12421
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to novel genes from E. faecalis and the polypeptides they encode. Also provided as are vectors, host cells, antibodies and methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of E. faecalis polypeptide activity. The invention additionally relates to diagnostic methods for detecting Enterococcus nucleic acids, polypeptides and antibodies in a biological sample. The present invention further relates to novel vaccines for the prevention or attenuation of infection by Enterococcus.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 536/023.100
NCL NCLM: 435/069.300
NCLS: 435/069.100; 435/070.100; 435/071.100; 435/071.200; 435/252.300; 435/254.110; 435/320.100; 435/325.000; 536/023.700

L15 ANSWER 20 OF 21 USPATFULL on STN
ACCESSION NUMBER: 2001:67794 USPATFULL
TITLE: Human respiratory syncytial virus peptides with antifusogenic and antiviral activities
INVENTOR(S): Barney, Shawn O'Lin, Cary, NC, United States
Lambert, Dennis Michael, Cary, NC, United States
Petteway, Stephen Robert, Cary, NC, United States
PATENT ASSIGNEE(S): Trimeris, Inc., Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6228983	B1	20010508
APPLICATION INFO.:	US 1995-485264		19950607 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-470896, filed on 6 Jun 1995 Continuation-in-part of Ser. No. US 1994-360107, filed on 20 Dec 1994 Continuation-in-part of Ser. No. US 1994-255208, filed on 7 Jun 1994 Continuation-in-part of Ser. No. US 1993-73028, filed on 7 Jun 1993, now patented, Pat. No. US 5464933
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Scheiner, Laurie
ASSISTANT EXAMINER: Parkin, Jeffrey S.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 62
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 84 Drawing Figure(s); 83 Drawing Page(s)
LINE COUNT: 32166
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to peptides which exhibit antifusogenic and antiviral activities. The peptides of the invention consist of a 16 to 39 amino acid region of a human respiratory syncytial virus protein. These regions were identified through computer algorithms capable of recognizing the ALLMOTI5, 107x178x4, or PLZIP amino acid motifs. These motifs are associated with the antifusogenic and antiviral activities of the claimed peptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 530/300.000
INCLS: 530/324.000; 530/325.000; 530/326.000; 424/211.100; 424/186.100
NCL NCLM: 530/300.000
NCLS: 424/186.100; 424/211.100; 530/324.000; 530/325.000; 530/326.000

L15 ANSWER 21 OF 21 USPATFULL on STN
ACCESSION NUMBER: 1998:150802 USPATFULL

TITLE: Technique for the prevention of false positive reactions in immunological testing due to C.sub.1 and C.sub.1q components of the complement and method for screening for rheumatic factor

INVENTOR(S): Singer, Jacques, Delray Beach, FL, United States
PATENT ASSIGNEE(S): Montefiore Medical Center, Bronx, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5843794		19981201
APPLICATION INFO.:	US 1995-564895		19951129 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1993-14549, filed on 8 Feb 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-857764, filed on 26 Mar 1992, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Spiegel, Carol A.
LEGAL REPRESENTATIVE: Hedman, Gibson & Costigan, P.C.
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 1280
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A novel technique is disclosed for the prevention of false positive reactions in immunological testing which are caused by interference of C.sub.1 and C.sub.1q. The method is based on heating a sample of a body fluid at a temperature of 59°-64° C. in the presence of a particular neutral salt. A method for screening for rheumatoid factor is also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 436/534.000
INCLS: 435/007.100; 435/962.000; 436/541.000; 436/506.000; 436/175.000; 436/821.000; 436/825.000
NCL NCLM: 436/534.000
NCLS: 435/007.100; 435/962.000; 436/175.000; 436/506.000; 436/541.000; 436/821.000; 436/825.000

(FILE 'MEDLINE' ENTERED AT 10:23:56 ON 21 APR 2004)
L16 3209 SEA FILE=MEDLINE ABB=ON PLU=ON "STAPHYLOCOCCAL PROTEIN A"/CT
L17 1614 SEA FILE=MEDLINE ABB=ON PLU=ON "YERSINIA PESTIS"/CT
L18 2 SEA FILE=MEDLINE ABB=ON PLU=ON L16 AND L17

L18 ANSWER 1 OF 2 MEDLINE on STN
ACCESSION NUMBER: 95347817 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7622225
TITLE: Suppression of cytokines in mice by protein A-V antigen fusion peptide and restoration of synthesis by active immunization.
AUTHOR: Nakajima R; Motin V L; Brubaker R R
CORPORATE SOURCE: Exploratory Research Laboratories I, Daiichi Pharmaceutical Co., Ltd., Tokyo, Japan.

Searcher : Shears 571-272-2528

CONTRACT NUMBER: AI 19353 (NIAID)
SOURCE: Infection and immunity, (1995 Aug) 63 (8) 3021-9.
Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199508
ENTRY DATE: Entered STN: 19950911
Last Updated on STN: 19950911
Entered Medline: 19950825
ED Entered STN: 19950911
Last Updated on STN: 19950911
Entered Medline: 19950825

AB It is established that an approximately 70-kb Lcr plasmid enables Yersinia pestis, the causative agent of bubonic plague, to multiply in focal necrotic lesions within visceral organs of mice by preventing net synthesis of the cytokines tumor necrosis factor alpha (TNF-alpha) and gamma interferon (IFN-gamma), thereby minimizing inflammation (Lcr+). Rabbit antiserum raised against cloned staphylococcal protein A-V antigen fusion peptide (PAV) is known to passively immunize mice against 10 minimum lethal doses of intravenously injected Lcr+ cells of Y. pestis. In this study, injected PAV suppressed TNF-alpha and IFN-gamma in mice challenged with avirulent V antigen-deficient Y. pestis (lcrV or Lcr-) and promoted survival in vivo of these isolates as well as salmonellae and Listeria monocytogenes (with which the outcome was lethal). Active immunization of mice with PAV protected against 1,000 minimum lethal doses of intravenously injected Lcr+ cells of Y. pestis and Yersinia pseudotuberculosis but not Yersinia enterocolitica. The progressive necrosis provoked by Lcr+ cells of Y. pestis in visceral organs of nonimmunized mice was replaced after active immunization with PAV by massive infiltration of neutrophils and mononuclear cells (which generated protective granulomas indistinguishable from those formed against avirulent Lcr- mutants in nonimmunized mice). Distinct multiple abscesses typical of Lcr+ cells of Y. pseudotuberculosis were prevented by similar immunization. Significant synthesis of TNF-alpha and IFN-gamma occurred in spleens of mice actively immunized with PAV after challenge with Lcr+ cells of Y. pestis. These findings suggest that V antigen contributes to disease by suppressing the normal inflammatory response.

L18 ANSWER 2 OF 2 MEDLINE on STN
ACCESSION NUMBER: 82007845 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7275993
TITLE: Antibody response to plague vaccination in humans as assayed by staphylococcal radioimmune precipitation (St-RIP) test.
AUTHOR: Schaffer F L; Soergel M E; Williams J E
SOURCE: Journal of biological standardization, (1981) 9 (3) 265-76.
Journal code: 0400335. ISSN: 0092-1157.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 198111
ENTRY DATE: Entered STN: 19900316
Last Updated on STN: 19900316
Entered Medline: 19811118
ED Entered STN: 19900316
Last Updated on STN: 19900316
Entered Medline: 19811118

(FILE 'HCAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO, USPATFULL' ENTERED AT 10:24:52 ON 21 APR 2004)
L19 1405 S "BRUBAKER R"?/AU
L20 205 S "MOTIN V"?/AU
L21 2293 S "SMIRNOV G"?/AU
L22 16 S L19 AND L20 AND L21
L23 54 S L19 AND (L20 OR L21)
L24 42 S L20 AND L21
L25 305 S (L23 OR L24 OR L19 OR L20 OR L21) AND PESTIS
L26 29 S L25 AND (SPA OR "PROTEIN A")
L27 36 S L22 OR L26
L28 9 DUP REM L27 (27 DUPLICATES REMOVED)

Author (S)

L28 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2003:851224 HCAPLUS
DOCUMENT NUMBER: 139:336913
TITLE: Recombinant plasmid comprising V antigen and staphylococcal **protein A** as vaccine against Yersinia **pestis** in mammal
INVENTOR(S): **Brubaker, Robert R.; Motin, Vladimir L.; Smirnov, George B.**
PATENT ASSIGNEE(S): Board of Trustees of Michigan State University, USA
SOURCE: U.S., 16 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6638510	B1	20031028	US 1994-302423	19940908

PRIORITY APPLN. INFO.: US 1994-302423 19940908
AB Described is a plasmid prepared by recombinant techniques which is used to prepare a vaccine against Yersinia **pestis**. The plasmid encodes Yersinia **pestis** V antigen and staphylococcal **protein A**.
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 1999:153582 HCAPLUS
DOCUMENT NUMBER: 130:293720
TITLE: Expression of the plague plasminogen activator in Yersinia pseudotuberculosis and Escherichia

coli

AUTHOR(S): Kutyrev, V.; Mehigh, R. J.; **Motin, V. L.** ; Pokrovskaya, M. S.; **Smirnov, G. B.**; **Brubaker, R. R.**

CORPORATE SOURCE: Laboratory of Molecular Microbiology, Russian Research Anti-Plague Institute "Microbe,", Saratov, 410071, Russia

SOURCE: Infection and Immunity (1999), 67(3), 1359-1367
CODEN: INFIBR; ISSN: 0019-9567

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Enteropathogenic yersiniae (Yersinia pseudotuberculosis and Yersinia enterocolitica) typically cause chronic disease as opposed to the closely related Yersinia pestis, the causative agent of bubonic plague. It is established that this difference reflects, in part, carriage by Y. pestis of a unique 9.6-kb pesticin or Pst plasmid (pPCP) encoding plasminogen activator (Pla) rather than distinctions between shared .apprx.70-kb low-calcium-response, or Lcr, plasmids (pCD in Y. pestis and pYV in enteropathogenic yersiniae) encoding cytotoxic Yops and anti-inflammatory V antigen. Pla is known to exist as a combination of 32.6-kDa (α-Pla) and slightly smaller (β-Pla) outer membrane proteins, of which at least one promotes bacterial dissemination in vivo and degradation of Yops in vitro. The authors show here that only α-Pla accumulates in Escherichia coli LE392/pPCP1 cultivated in enriched medium and that either autolysis or extraction of this isolate with 1.0 M NaCl results in release of soluble α and β forms possessing biol. activity. This process also converted cell-bound α-Pla to β-Pla and smaller forms in Y. pestis KIM/pPCP1 and Y. pseudotuberculosis PB1/+/pPCP1 but did not promote solubilization. Pla-mediated posttranslational hydrolysis of pulse-labeled Yops in Y. pseudotuberculosis PB1/+/pPCP1 occurred more slowly than that in Y. pestis but was otherwise similar except for accumulation of stable degradation products of YadA, a pYV-mediated fibrillar adhesin not encoded in frame by pCD. Carriage of pPCP by Y. pseudotuberculosis did not significantly influence virulence in mice.

REFERENCE COUNT: 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 1997:229090 HCAPLUS

DOCUMENT NUMBER: 126:292117

TITLE: Resistance to lipopolysaccharide mediated by the Yersinia **pestis** V antigen-polyhistidine fusion peptide: amplification of interleukin-10

AUTHOR(S): Nedialkov, Yuri A.; **Motin, Vladimir L.** ; **Brubaker, Robert R.**

CORPORATE SOURCE: Department of Microbiology, Michigan State University, East Lansing, MI, 48824-1101, USA

SOURCE: Infection and Immunity (1997), 65(4), 1196-1203
CODEN: INFIBR; ISSN: 0019-9567

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We previously showed that injection of homogeneous staphylococcal **protein A**-V antigen fusion peptide into mice delayed allograft rejection and suppressed the major proinflammatory cytokines tumor necrosis factor alpha (TNF-α) and gamma interferon (IFN-γ) associated with generation of protective granulomas. This study was undertaken to determine if V antigen could prevent endotoxic shock, known to be mediated by excessive production of certain proinflammatory cytokines. After treatment with 50 μg of homogeneous V antigen-polyhistidine fusion peptide (Vh), the 50% LD of purified lipopolysaccharide (LPS) in BALB/c mice immediately rose from 63 μg (normal controls) to 318 μg, fell to near baseline (71 μg) in 6 h, and then slowly rose to a maximum of 566 μg at 48 h before again returning to normal. Injected Vh alone (50 μg) promptly induced the anti-inflammatory cytokine interleukin-10 (IL-10) as well as modest levels of TNF-α (an inducer of IL-10) in spleen. Concomitant injection of Vh and an otherwise LD of LPS (200 μg) dramatically decreased levels of TNF-α and IFN-γ in the spleen and peritoneal lavage fluid as compared to values determined for LPS alone. These results would be expected if V antigen directly up-regulated IL-10 that is reported to generally down-regulate proinflammatory cytokines. Mice receiving 200 μg of LPS 48 h after injection of Vh exhibited patterns of cytokine synthesis similar to those observed in endotoxin-tolerant mice, a condition also reported to be mediated by IL-10. These findings suggest that V antigen serves as a virulence factor by amplifying IL-10, thereby repressing proinflammatory cytokines required for expression of cell-mediated immunity.

L28 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 1997:313887 HCAPLUS

DOCUMENT NUMBER: 126:338546

TITLE: Suppression of mouse skin allograft rejection by **protein A**-Yersiniae V antigen fusion peptide

AUTHOR(S): **Motin, Vladimir L.**; Kutas, Susan M.; **Brubaker, Robert R.**

CORPORATE SOURCE: Department of Microbiology, Michigan State University, East Lansing, MI, 48824-1101, USA

SOURCE: Transplantation (1997), 63(7), 1040-1042
CODEN: TRPLAU; ISSN: 0041-1337

PUBLISHER: Williams & Wilkins

DOCUMENT TYPE: Journal

LANGUAGE: English

AB V antigen is an established virulence factor of Yersinia **pestis**, the causative agent of bubonic plague. Injection of homogeneous staphylococcal **protein A**-V antigen fusion peptide into mice was previously found to suppress tumor necrosis factor-α and interferon-γ necessary for generation of protective granulomas. Here, we show that BALB/c mice receiving daily i.p. injections of 100 μg of control **protein A** initiated rejection of C57BL/6 mouse tail skin grafts after 6.2±1.1 days. This time doubled to 12.2±1.4 days upon similar administration of **protein A**-V antigen fusion peptide ($P<0.001$); times of total allograft retention remained constant This finding indicates that V

antigen can postpone inflammation known to be associated with recognition and destruction of foreign tissue by T lymphocytes.
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 1996:606425 HCAPLUS
DOCUMENT NUMBER: 125:245156
TITLE: V antigen-polyhistidine fusion peptide: binding to LcrH and active immunity against plague
AUTHOR(S): **Motin, Vladimir L.**; Nedialkov, Yuri A.; **Brubaker, Robert R.**
CORPORATE SOURCE: Department Microbiology, Michigan State University, East Lansing, MI, 48824-1101, USA
SOURCE: Infection and Immunity (1996), 64(10), 4313-4318
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The structural gene for V antigen (lcrV) is known to be encoded within the lcrGVH-yopBD operon of the .apprx.70-kb low-calcium-response or Lcr plasmid of Yersinia **pestis**. This 37-kDa monomeric peptide was reported to provide active immunity in mice, suppress inflammatory cytokines, and regulate expression of the low calcium response (Lcr+). Here the authors describe pVHB62, encoding a polyhistidine-V antigen fusion peptide (Vh) and linked LcrH. Vh underwent degradation from both the C terminus and N terminus during classical chromatog. fractionation but remained intact within two compartments during Ni2+ affinity chromatog. The first was homogeneous, capable of active immunization (mouse i.v. 50% LD, >107 bacteria), and stable at 4°. The second remained bound to the affinity column but could be eluted as a mixture of Vh, LcrH, and low-mol.-weight material by application of 6 M guanidine·HCl. This mixture was dialyzed, denatured in 8 M urea, and again applied to the affinity column, which then bound Vh but not LcrH. The latter was recovered and renatured, and low-mol.-weight material was removed by biochem. fractionation. The resulting homogeneous LcrH bound **protein A**-V antigen fusion peptide but not **protein A** in a sandwich ELISA, and this reaction was inhibited by Vh. These observations indicate that LcrH normally binds V antigen in bacterial cytoplasm and suggest that only free LcrH down-regulates expression of the low calcium response.

L28 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6
ACCESSION NUMBER: 1995:718958 HCAPLUS
DOCUMENT NUMBER: 123:167051
TITLE: Suppression of cytokines in mice by **protein A**-V antigen fusion peptide and restoration of synthesis by active immunization
AUTHOR(S): Nakajima, Ryohei; **Motin, Vladimir L.**; **Brubaker, Robert R.**
CORPORATE SOURCE: Exploratory Res. lab. I, Daiichi Pharm. Co., ltd., Tokyo, 134, Japan

SOURCE: Infection and Immunity (1995), 63(8), 3021-9
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB It is established that an .apprx.70-kb Lcr plasmid enables Yersinia **pestis**, the causative agent of bubonic plague, to multiply in focal necrotic lesions within visceral organs of mice by preventing net synthesis of the cytokines tumor necrosis factor alpha (TNF-α) and gamma interferon (IFN-γ), thereby minimizing inflammation (Lcr+). Rabbit antiserum raised against cloned staphylococcal **protein A**-V antigen fusion peptide (PAV) is known to passively immunize mice against 10 min. LDs of i.v. injected Lcr+ cells of Y. **pestis**. In this study, injected PAV suppressed TNF-α and IFN-γ in mice challenged with avirulent V antigen-deficient Y. **pestis** (lcrV or Lcr-) and promoted survival in vivo of these isolates as well as salmonellae and Listeria monocytogenes (with which the outcome was lethal). Active immunization of mice with PAV protected against 1,000 min. LDs of i.v. injected Lcr+ cells of Y. **pestis** and Yersinia pseudotuberculosis but not Yersinia enterocolitica. The progressive necrosis provoked by Lcr+ cells of Y. **pestis** in visceral organs of nonimmunized mice was replaced after active immunization with PAV by massive infiltration of neutrophils and mononuclear cells (which generated protective granulomas indistinguishable from those formed against avirulent Lcr- mutants in nonimmunized mice). Distinct multiple abscesses typical of Lcr+ cells of Y. pseudotuberculosis were prevented by similar immunization. Significant synthesis of TNF-α and IFN-γ occurred in spleens of mice actively immunized with PAV after challenge with Lcr+ cells of Y. **pestis**. These findings suggest that V antigen contributes to disease by suppressing the normal inflammatory response.

L28 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 7

ACCESSION NUMBER: 1994:653231 HCAPLUS
DOCUMENT NUMBER: 121:253231
TITLE: Passive immunity to yersiniae mediated by anti-recombiant V antigen and **protein A**-V antigen fusion peptide
AUTHOR(S): **Motin, Vladimir L.**; Nakajima, Ryohei; **Smirnov, George B.**; **Brubaker, Robert R.**
CORPORATE SOURCE: Dep. Micribiol., Michigan State Univ., East Lansin, MI, 48824-1101, USA
SOURCE: Infection and Immunity (1994), 62(10), 4192-201
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English

AB LcrV (V antigen), a known unstable 37.3-kDa monomeric peptide encoded on the ca. 70-kb Lcr plasmid of Yersinia **pestis**, Yersinia pseudotuberculosis, and Yersinia enterocolitica, has been implicated as a regulator of the low-calcium response, virulence factor, and protective antigen. In this study, lcrV of Y. **pestis** was cloned into protease-deficient Escherichia coli BL21. The resulting recombinant V antigen underwent marked degradation

from the C-terminal end during purification, yielding major peptides of 36, 35, 34, and 32 to 29 kDa. Rabbit gamma globulin raised against this mixture of cleavage products provided significant protection against 10 min. LDs of Y. **pestis** ($P<0.01$) and Y. pseudotuberculosis ($P<0.02$). To both stabilize V antigen and facilitate its purification, plasmid pPAV13 was constructed so as to encode a fusion of lcrV and the structural gene for **protein A** (i.e., all but the first 67 N-terminal amino acids of V antigen plus the signal sequence and IgG-binding domains but not the cell wall-associated region of **protein A**). The resulting fusion peptide, termed PAV, could be purified to homogeneity in one step by IgG affinity chromatog. and was stable thereafter. Rabbit polyclonal gamma globulin directed against PAV provided excellent passive immunity against 10 min. LDs of Y. **pestis** ($P<0.005$) and Y. pseudotuberculosis ($P<0.005$) but was ineffective against Y. enterocolitica. Protection failed after absorption with excess PAV, cloned whole V antigen, or a large (31.5-kDa) truncated derivative of the latter but was retained ($P<0.005$) upon similar absorption with a smaller (19.3-kDa) truncated variant, indicating that at least one protective epitope resides internally between amino acids 168 and 275.

L28 ANSWER 8 OF 9 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1994:330942 BIOSIS
DOCUMENT NUMBER: PREV199497343942
TITLE: Recombinant V antigen and **protein A** -V antigen fusion peptide mediated passive immunity to Yersiniae.
AUTHOR(S): **Motin, V. L.** [Reprint author]; Nakajima, R.; **Smirnov, G. B.**; **Brubaker, R. R.** [Reprint author]
CORPORATE SOURCE: Mich. State Univ., East Lansing, MI, USA
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (1994) Vol. 94, No. 0, pp. 155.
Meeting Info.: 94th General Meeting of the American Society for Microbiology. Las Vegas, Nevada, USA. May 23-27, 1994.
ISSN: 1060-2011.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 2 Aug 1994
Last Updated on STN: 2 Aug 1994

L28 ANSWER 9 OF 9 CONFSCI COPYRIGHT 2004 CSA on STN
ACCESSION NUMBER: 94:51393 CONFSCI
DOCUMENT NUMBER: 94-063363
TITLE: Recombinant V antigen and protein A-V antigen fusion peptide mediated passive immunity to Yersiniae
AUTHOR: **Motin, V.L.**; Nakajima, R.; **Smirnov, G.B.**; **Brubaker, R.R.**
CORPORATE SOURCE: Michigan State Univ., East Lansing, USA
SOURCE: American Society for Microbiology, 1325 Massachusetts Ave., NW, Washington, DC 20005, Abstracts. Poster

duplicate

Searcher : Shears 571-272-2528

Paper No. E68.
Meeting Info.: 942 5004: 94th Annual Meeting of the American Society for Microbiology (9425004). Las Vegas, NV (USA). 23-27 May 1994. American Association for Microbiology.
DOCUMENT TYPE: Conference
FILE SEGMENT: DCCP
LANGUAGE: English

FILE 'HOME' ENTERED AT 10:27:54 ON 21 APR 2004

Searcher : Shears 571-272-2528